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Title:
Perfect score:
Sequence:
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Listing first 45 summaries
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 SPTREMBL_21:*

Sp_archea:*

2: sp_bacteria

3: sp_fund:*

4: sp_human:*

5: sp_invert

6: sp_manma!

7: sp_manma!

7: sp_marchea:

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sp_inuman: *
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Pred. No. is the number of results predicted by chance to have a serie freater than in equal to the score of the result being printed, and is derived by analysis of the total accre distribution.

SUMMARIES

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Best Local :
                                       029412 PRELIMINARY: PRE; 029412; 01-05 (TERMSTEEL OF, Created)
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Eukaryota: Metazoa: Chorduta; Craniata; Vertebrata; Euteleostc
Mammualia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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01 NoV 1998 (TrEMBLEEL 08, Last sequence update)
01 DEC 2001 (FrEMBLEEL 19, Last annotation update)
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Pred. No. 2.4e 62;
8- Mismatches 9
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Best Local :
HSSP; P01563; 2HIE. Interferon_abd
                                                             EMBL; AF238613; AAG14170.1;
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Antiviral; Cytokine; Sigi
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EMBL; S41178; AAB22723.1; -.
HSSP; P01574; IAU1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=92348930; PubMed=1640116;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Interferon-beta-1 precursor.
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                                                                                                 FAMILY
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                                                                                                                                                                                                                                                                                                                                                              Bowinae, Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186 AA; 21878 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Signal
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Chung Y.G., Seidel G.E. Jr.; Chung Y.G., Seidel G.E. Jr.; "Cloning bowine interferon-tau genes and characterizing their transcriptional expression during early pregnancy."; Submitted (FEB-2000) to the EMFL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAK 2001 (FrEMBLrel 16, Created)
01-MAR-2001 (TrEMBLrel 16, Last sequence update)
01-DEC 2001 (TrEMBLrel 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metasoa, Chordata, Craniata, Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodaetyla; Ruminantia; Pecora; Bovoidea;
"!- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Artursson K., Gobl A., Lindersson M., Johansson M., Alm G.; "Molecular cloning of a gene encoding percine interferen-beta."; J. Interferon Res. 12:153-160(1992).
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Mammalia: Eutheria: Getartiodactyla; Suina:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (FER 1992) to the every bridger, betal databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -1- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141 HLKKYYLSILQYLKSKEYRSCAWTVVQVEILRNESFLNRLTDYLRN 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 HLKRYYGPTLHYI KAKEYSHCAWTI VRVELLENSYSI INDLITGYLEN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C1 EMIQNIPATERQDESSESMBETTVEBELARVYBÇIRBEKTVETEKLEKEFERGALMSEL 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMIQQIFGILEPNESSTGWNETVIKTILVELDGQMDDLETILEEIMEKENFORGD MIII. 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MSYNVLPY@QPSSNLACQXLLGQLPCTPQYCLEDRANPEVPREIMQPPQPGKEEAVLIII 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         h 58.5%; Score 507.5; DB 6;
Similarity 60.2%; Pred. No. 1.6e-37;
50, Conservative 35, Mis…atches 89,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gobl A., Lindersson M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENTERFERON-BETA-1.
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Maetyla; Suina; Suidae; Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5F16B8B3C3AE603D CRC64;
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Hest Local S
Matches 5
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smart; sm00076; IFabd; 1.
pkostiff; ps00252; INTERPERON_A_R_P: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antiviral: Cytokine SEQUENCE 195 AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prim: PFO0143: interferon: 1.
PPINTS: PRO0266: INTERFERONAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV 1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oryctoladus cuficulus (Rabbit).
Rukarysta, Merayea: Chordata: Craniata: Vertebrata; Buteleostomi:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          028844
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                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                           Pfam; PF00143; Interferous 1.
PRINTS; PR00266; INTERFERONAR.
Profession PD000550; Interferon "
                                                                                                                                                                                                                                                                                                                                                                      EMBL; $68499; AAC+0525.2: -
HSSP; P01563; 2HIE; Interferon_abd.
Interfero; TPR000471; Interferon_abd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. Interferon Res. 13:313-322(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Cloning and structural analysis of tour genes encoding interteron-
omega in rabbit.",
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MUDILINE-94132653; PubMed-8301151;
Charlier M., L'Haridon R., Boisnard M., Martal J., Gayo P.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MUBI_TaxID 9986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Interteron-omega48.
                                                                                                                                                                                                                                                                            SMARI: SM00076: IPabd; 1.
PROSIIE: PS00252: INTERFEREN_A_R_D: 1
Addition
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           158 EYSDCAWELIRVEMMR 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19 KLLWILNGKE EYCLKBERHETTEBETKOLQOFQKEDAALTIYKMIQNIFAIFRODSSS 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    y Match
Local Similarity 40.4%; Pred. No. 9.7e-16;
Local Similarity 50.4%; Mixmatches 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98 AAMNTILLEGLGIGLHOQEBOGJACLSQVMEEKDSALGRMGPILTVKKYYEGGIHVILKKK 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          39 ELLACMS ELSTESTICOPPROPRI PMEMORADO TONDALSVILHEMICOCENLEHTEHSS 97
                                                           Local Similarity
hes 57: Conserv
172 RRAFSSTADLQESLRS 187
                               151 LENFYRINGLIGYLEN 166
                                                                                                                           52 CLEDREDEGEPREVVNGSOFORHOAVSVLHEMLQQIFNLLHTAHSSAAWNNTLLEELHAA 111
                                                                                                                                                           31 CLKDRMNFD:PFFFFEJEQEQMEDAALTIYEMIQNIFATFRQDSSSTGWNETIVENLLAN 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMBET (VENICANVYH)C MELKIVLEEKI EKEDETRÄALMSSLHUKEYYGRILHYLKAK 136
                                                                                                                                                                                                                                                                                                                                                                                                                                FAMILY.
                                                                                           VYHQINHLKTVLEEKLEKESPIECAIMSSUHLKPYYGGTILHYLKAKEYSHOAWTTVRVEI 150
                                                                                                                                                                                                                                                               195 AA: 21981 MW; D4D2E3EF5134AE5F CRC64:
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                                                                                                                                                                                            30.1%; Score 261; DB 6; Length 195;
hilarity 41.9%; Pred. No. 1.3e-15;
Conservative 21; Mismatches 58; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22139 MW: 689024438203E50A CRC64:
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RESULI 6
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01 NOV 1996 (TrEMBLiel. 01, Last sequence update)
01-DEC 2001 (TrEMBLiel. 19, Last annotation update)
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Eukaryota; Metazoa; Chordata; Craniala; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Interferon-omega45
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MEDLINE 94132651; PubMed 8301151;
Charlier M., L'Haridon R., Roisnard M., Martal J., Gayo P.;
"Chomina and structural analysis of four genes encoding interferon-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9986;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL: $69000; AAC60526.1; -. HSSP; P01563; 2HIE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           omega in rabbit.";
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PROSITE, F300252; INTERPERON_A_B_D: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINTS: PRO0266; INTERFERONAB.
ProDom; Ph000550; Interferon_abd; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (IrEMBLrel. 01, Last sequence update)
01-DEC 2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q28562;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antiviral; Cytokine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00143; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR000471; Interferon_abd
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Mammalia; Eutheria: Cetartiodactyla: Ruminantia: Pecora: Noveidea:
Boordac, Caprinac; Ovis.
                        "Cloning and analysis of a gene encoding ovine interferon alpha-11."; Gene 136:281-282(1991).
-i- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AMY 49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ovine interferon alpha precursor.
                                                                                                                        Whaley A.E., Carroli R.S., imakawa K.
                                                                                                                                                           TISSUE=LIVER;
MEDLINE=92039090; PubMed=1937057;
                                                                                                                                                                                                                            SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                112 LHQQUQGLETOLVQAMGEEDSVLTADSFTLMLKFYFGKTRLÝLFEKKHRANÁWELVRMKÍ 171
                                                                                                                                                                                                                                                                                       NCBI_Tax1D=9940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172 KRAFSSTADDQESLRS 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         151 LENFYEINBLTGYLKN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31 CLEDMANDIFFEIFGUGGGGEGEDALLTIYERLQUUTAIDGGGSSTGWNETIVENILAN 90
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FAMILY
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Best Local :
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SMART: SMARO76: IFabd: 1.
PROSITE: PSUD252: UNIERFON_A_B_D: 1.
ANTISTIBLE SYNAMORY STABIL.
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HSSP: P01563; 2HIE.
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Liu L., Leaman D.W., Bixby J.A., Roberts K.M.;
"A type I orino intertered with limited similarity to IFN-alpha, IFN
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Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
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of New Tree (TERMETEL, 6), Last sequence update)
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[hterteron Type I procursor.
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Plan: PEO0143: interteron: I.
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52 TEKDERDEÇERREVVNISQEQKNQTVSVLHEMIQQTENLIHTARSSAAWNNILLEELHTA 11
                                                                                                                       40 NV FINANTARANAS SEGMENTARING INCOMESTATIVA CARACTERÍCIA EL CARACTERÍSTICA CARA
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49.4%: Pred. No.
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                                                                                                                                                                                                                                                                       01-NOV-1996 (TERMILTEL 01, Proated)
01-NOV-1996 (TERMILTEL 01, Last sequence update)
01-DEC-2001 (LERMILTEL 19, Last annotation update)
Interferon omeq#44
                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Enteleostomi;
Mammalli: Fulheria: Lajsery'a, Leporidae, eryctolagas.
NCBI_TaxID 9986;
                                                                                                                                                                                                                  oryctolagus cuniculus (Rabbit)
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Eukaryota: Metazoa; Chordata: Craniata: Vertebrata; Entelcostomi;
Mammalia; Eutheria; Primates: Catarrhini; Hominidae; Homo.
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ProDom: PD000550; Interferon_abd: 1.
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    score 252.5; DR 4; Length
    Pred. No. 7.2e 15;
    Mismatches 47, Indeks

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Charlier M., L'Haridon R., Boishard M., Martal J., Gaye P.,
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Orygtolajus emicalus (Bubbit).
Orygtolajus emicalus (Bubbit).
Orygtolajus emicalus (Bubbit).
                                                                                                                                                                           Antiviral; Cytokine.
SEQUENCE 195 AA; 22067 MW;
                                                                                                                                                                                                                                        SMART: SM00076; [Fabd; ].
PROSTEE: BEART: SM00076; [Fabd; ].
                                                                                                                                                                                                                                                                                            Interpret (PR000471: Interferon_abd Priam; PR00143; interferon; 1 PR101143; interferon; Interferonab; PRINTS; PR00266; INTERFERONAB; Printom; P2000550; Interferon_abd; 1
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01-NOV-1996 (TERMBLRE). 01, Last sequence update)
01-DEC-2001 (TERMBLRE). 19, Last annotation update)
Interferon omega-1 (Fragment).
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                                                                            01-DEC-2001 (TrEMBLIC), 19, Created)
01-DEC-2001 (TrEMBLIC), 19, Last sequence apdate)
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PROSTUE, PSQ0252, INTERPERCH_A_F_D: 1.
ACTIVITY 21; Cytckine.
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Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Prod. No. 1.1e-14;
C; Vismofolyo <sup>61</sup>; Indole
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| Messay | 14 | Q9531/2 | 10 | Q9531
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Submitted (ST 1999) to the EMML/Genbank/DDBJ databases.
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of BB* 2001 (TEMBLECT 19, Last sequence update)
of MAK 2002 (TEMBLECT 20, Last annotation update)
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37.8%; Pred. No. 1.2e 14;
vative 24; Mismatches 51; Indels
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     28.8%; Score 250; DB 6; 87.8%; Pred. No. 1.2e-14
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HSSP: P01563: 2HEE
InterPro: 1P8000471: Interferon_abd
Pfam: PF00144; interferon: 1.
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Mammalla: Entheria: Cetartiodaetyla: Ruminantia: Pecera: Recoidea:
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Search completed: May 6, 2003, 09:54:40

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OM protein - protein search, using sw model

Pun on: May 6, 2003, 09:49:03 : Search time 8 Seconds (without alignments) 860.634 Million cell updates/sec

Title: Perfect score: Sequence: US-09-832-658A-26 867

1 MAYAALGALQABENEQOQEL... FVEILPNEYPINPLTGYLRN 166

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched. 112892 seqs. 41475328 residues

Total number of hits satisfying chosen parameters:

Maximum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Mayimum Match 100%

Listing first 45 summaries

SwissProt_40:*

Dutabase :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

808288444444 400700743248	
242.5 241.5 241.5 240.2 240.2 240.2 237.5	
28.00 27.79 27.79 27.45 27.45 27.45 27.45 26.67	
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resura 3.7 "Synthesis of human fibroblast interferon by E. coll.": "Synthesis of human fibroblast interferon by E. coll.": Nucleic Acids Res. 8:4057:4074(1980).	N.A. 752; PubMod-6 Shepard H.M.	[3] SEQUENCE FROM N.A. SEQUENCE FROM N.A. HOUGHTON M., Eaton M.A.W., Stewart A.G., Smith J.C., Fact S.M., HOUGHTON M., Eaton M.A.W., Stewart A.G., Smith J.C., Fact S.M., Cartlin G.H., Lewis H.M., Patel L.P., Emture J.S., Carey N.H., Porter A.G.; "The complete amino acid sequence of human libroblast interferon as deduced using symithetic origonessynthomacicatide primers of towerse transcriptase."; Rucleic Acids Ros. 8:2885-2894(1986).	[4] [4] SEQUENCE FROM N.A. SEQUENCE FROM N.A. MPDLINE-R0254542: PubMed=6157094; Derignor P., Construct J., Inscience E., Vilekaett C., Threernier J., Dewos P., Fiers M., Tisolation and structure of a human Libroblast interferon dene.": Nature 285:542-547(1980).	[3] SEQUENCE FROM N.A. SEQUENCE FROM N.A. MEDLINE=81005095; PubMcd-6157631; Taniquchi T., Ohno S., Fujii-Kuriyama Y., Muramatsu M.; Taniquchi T., Oseguence of human fibroblast interteron cDNA.": Gene 10:11-15(1980).	[2] SEQUENCE FROM N.A. Ohno S., raniquehi T.; "Structure of a chromosomal gene for human interferon beta."; Proc. Nafl. Acad. Sci. U.S.A. 78:5805-5809(1981).	[1] SEQUENCE FROM N.A. MEDILINE-81198052; FubMed-5164984; Lawn K.M., Adeciman J., Fizike A.L., Hee-F-7 M., Gross M., Najarian R., Goeddel D.V.; "Human fibroblast interferon gone lacks introns."; Nucleic Acids Res. 9:1045-1052(1981).	PO1574; 21-JUL-1986 (Rel. 0), Greated) 21-JUL-1985 (Pel. 0), Last sequence update) 15-JUH-2002 (Rel. 41, Last sequence update) 15-JUH-2002 (Rel. 0), Last sequence update) 16-JUH-2002 (Rel. 0), Created) 16-JUH-2002 (Rel. 0), Last sequence update) 16-JUH-2002 (Rel. 0), Created) 16-JUH-2002 (Rel. 0), Last sequence update) 16-JUH-20	LT 1 HUMAN LNB_HUMAN SIANDARD, FRT; 187 AA.

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                                                                                                                         Genew: HCNe's
MIM: 147640;
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Proc. Mail. Acad. Sci. U.S.A. 94:11818 [1818](1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "The amino terminal sequence of human tibroblast interferon as deduced from regerse transcripts obtained using synthetic of identification primers.":
               PROSITE: PSU0252: INTERFERON A.B.E. I
                                                 Probom; P0000850; Interteron_abd; 1.
                                                                  PRINTS; PRODZES; INTERFERUNAR
                                                                                     Plan: PE00143; interferon:
                                                                                                          InterPro:
                                                                                                                                                               1.10H;
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Shepard H.M., Loung D., Stebbing N., Gooddel D.V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDITINE 8105-8451; PubMod 6159597;
Houghton M., Stewart A O Dood S
                                SMART: SM 00076; IFabd; l
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "A single amino acid change in IEN-betal abolishes its antiviral
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WMW "http://www.lodascion/comp//Lhtml".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Metaseron (Werlex) and Rebit (Serona). Used in the treatment o madruple selectosis (MS). Betaseron is a slightly modified form of LENHO with two residue substitutions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SHROTELLHLAR LOCALITEN: Secreted. FHARMACETHERICAL: Available under the names Avenex (Bicaen)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DATAWASE: NAME Avonex; Note Official intormation on Avonex;
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                                                                                                                                                                                                                                   V00546; CAA23807.1;
                                                                                                                                          HONE: 54 64: 1FNH1
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Glycoprotein; Antiviral; Signal; Pharmaceutical;
                                                                                                      TPROOG471. Interferon_abd

    Stewart A.J., Dood S.M., Entago J.S., Eaton M.A.W.
    Patel T.P., Lewis H.M., Porter A.G., Birch J.R.,

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16-00T-2001 (Rel. 40, Last sequence update)
15-JUN 2002 (Rel. 41, Last annotation update)
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CARBOHYD
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                                                                                                                                                                                                                               PIR; G24912; IVHOBI.
RISSP; P01574; IAGI.
InterPro: IPR000471: Interteron_akd.
Plam; PF00144; Interteron; I.
PKINTS: PR00265; INTERTERONAB.
PTODOM: PD000550; Interferon_abd; I.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukuryota, Motazoa, Obordata, Oraniata, Vertebrata; Euto-Leostomi;
Mammalia; Eutheria: Perissodaetyla; Equidae; Equus.
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Bukaryota, Metazoa Ch
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PROSITE: FS00050; INTENE
Cytokine, Antipiral, 31,
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al, Gl,:oprotein, Signal.
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                                                                                                                                                                               Nations 95; Conservative Provided No. 1.6c-42;
    Best Local Similarity
Matches 90, Conser
                                                                                   Query Match
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"The structure and begrevial expression of three district bowing interferon-beta genes."
Biotechnology 2.458 464(1984).
FUNCTION. BAS ANTIVISAL, ANTIRMYTERIAL AND ANTIVARMER ACTIVITIES
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Pfam; PF00143; interferon; 1.
PRINTS, FE00256, IMPERIESHAR
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Mammalia: Eutheria: Cetartiodactyla: Runibantia: Perera: Novoidea:
Bovidae: Bovinae: Bos.
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21-JUL-1986 (Ref. 01, Last sequence update)
15-JUN-2002 (Ref. 41, Last annotation update)
                                                                                                                                                                               SEQUENCE
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PECSITE: PS00252: INTERPERCH_A_B_D; 1.
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                                                                                                                                                                               186 AA;
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                                                                                                                                                                      161 PROBABLE.
131 M. LIMERT (CHAMALLIA) (P. 179 N. LIMERT (CHAMALL
53.1%; Score 450.5; DB 1 54.9%; Pred. No. 2.9e-32; 
tive 31; Mismatches 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   386
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                                                                                       DB 1; Length 186;
                                                                                                                                                                                                                    .) (P CTMITAL).
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Ptam: PPG0143. interferon: 1.
PKINIS: PRG0265: INTERFERONAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.iobesib.ch/nincores.
                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cytokine; Glycoprotein; Antiviral; Multigene family; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART: SM00076: IF4bd: 1. PROSTIE: PS00252: INTERFERON_A_B_B_B; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of send an email to licensedisb sib.ch).
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FIRETHORY HAS ANTIVIKAL ANTIHACTERIAL AND ANTICANCER ACTIVITIES
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"The structure and bacterial expression of three distinct bovine
Interferon beta senses ";
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Mammodia: Estheria: Cetartiodaetyla: Ruminantia: Pecora: Bovoidea;
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21 JUL 1986 (Rel. 01, last sequence update)
15 JUN 2002 (Rel. 41, last annotation update)
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62 MIQNIFATERQUSSSICWNFTIVENLLANVYHQINHLETVLEEKLEKEPETROALMSSLH 121
                                                                                                                                                                                                                                               toral Similarity
                                                                 24 SYSTILKFOOKKSAEVOOKLISOLHSTPOHCLEAKMDFQVPEEMNQAQOFKKEDAILVIYE 82
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                                                                                                                                   2 AYAALDALQASSNED ONE IN WOLNOWLED LIKERNED LEELIKOLOOFOKELAALTIYE 61
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                                                                                                                                                                                                                                                                                                                                                                               131
                                                                                                                                                                                                                                    49.2%: Score 426.5;
56.6%; Pred. No. 2..
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                                                                                                                                                                                                                                                                                  SEQUENCE
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Biotechnology 2:458-464(1981).
-!- FURCTION. HAS ANTIVIKAL, ANTIHAVILKIAL AND ANTICANCER ACTIVITIES
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HELF, :01574; 1AU1.
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Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
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23 SYSTERFAGROSLKETOKLISALISINGR LEARMIFOMPEEMKOROGTOKEDATIAMYE KO
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                                                             2 AYAALGALQASSNEQQKILLWQLNGRILEYTLKDEMNEDTPEETKQLQQFQKEDAALITYE 61
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N-LINKED (GLANACL . .) (POTENITAL)
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122 FEFTCH CONTRACTOR AND INVESTIGATION OF THE TOTAL 166

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Petek F.,
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Koda T., Enjita T., Taniquebi T.;
"Nucleotide sequence of the mouse interteron beta gene.",
Nucleic Acids Res. 17:3291-3291(1939).
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Laniquohi T.:
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Enkarenta: Metuzoa: Chordata: Craniata, Vortebrata: Eutaloostomi:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Interferon beta precursor (IFN beta).
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MEDITURE 96028219; PabMed 747.3712;
Senda T., Sairoh S.-I., Mitsui Y.;
Senda Totalistic of recombinant murine interferon-beta
"Refined crystal structure of recombinant murine interferon-beta
2.15-A resolution.";
2.15-A resolution.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Structure and characterization of a murine chromosomal fragment containing the interferon beta gene.", I. Mol. Biol. 204:221-231(1988).
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Senda F. Matsuda S. Furibara H. Naka
Shimizu H. Mizuno H. Mitsui Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Structure and expression of a cloued cDNA for mouse interteron beta.":
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                                                                                                                                                                                                                                                                     Romania Shimazu T., Matsuda S., Kawano G., Shimizu H.,
Wakamura K.T., Mitsui Y.;
                                                                                                                                                                                                                                                                                              X-RAY CRYSTALLOGRAPHY (2 6 ANGSTROMS).
MEDLINE-92371425, FubMed 1505514,
Senda T. Shimazu T., Matsuda S., Kawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Purification and carbohydrate structure of natural murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE 88196115; FubMed-3360010;
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                                                                           J. MOI. BIOI. 253:187-207(1755).
-!- FUNCTION: HAS ANTIVIEAL, ANTIHACTERIAL AND ANTICANCER ACTIVITIES
-!- SUBUNIT: MONOMER.
                                                                                                                                                                                                                                                  beta.
                                                                                                                                                                                                                                                                                                                                                             "Three-dimensional structure of recombinant murine interferon-beta.": Proc. 'pro Acad . B. Phys. Riol. Sci. 66-77-80(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eur. J. Biochem. 173:311-316(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            interteron-beta.
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                               -1- SIMILARITY: BELONGS TO THE INTERPERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                              "Three dimensional crystal structure of recombinant murine interferon-
                                             : FIM: THIS BETA INTERFIERON COES NOT HAVE A DISULFIDE BOND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INE 89125582; PubMed=3221389;
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MGD; MGI:107657; Ifnb.
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01-NOV-1997 (Pel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Interferon beta precursor (IFN-beta).
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MEDLINE-97271897; pubMed 912638;
MEDLINE-97271897; pubMedline-property with the property of the capression on rat quioma cells.";
hibbitory effect of its expression on rat quioma cells.";
Biochem. Biochem. Res. Commun. 22:6584-701(1997).
-i- pubCTION DAS ANTIVIBAL, ANTIBACHERIAL AND AND CANTER ACTIVITIES.
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Eukarypta, Motaros, Chordata, Craniara, Vertebrata, Euteleostomi:
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Ecs 77; Conservation
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-:- SUBUNIT: MONOMER (BY SIMILARITY).
-:- SUBCELLULAR LOCATION: Secreted.
-:- PIM: THIS BETA INTERFERON DOES NOT HAVE A DISULFIDE BOND
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                                                    this SWISS PMOJ entry is copyright. It is produced through a collaboration between the SWISS Institute of Bioinformatics and the EMBL outstation -
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                                                                                                                                                                                                                       MEDLINE 8705 8170; PubMed=8022999;
Himmeter A., Hauptmann R., Adolf G
                                                                                                                                                                                                                                                                                                                  Bukaryota: Metazes: Cherdata: Cranista: Vertebrata: Euteleostemi;
Mammalia: Eutheria: Perissodaetyla: Equidae: Equus.
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Plan; PF00143: interteron: 1.
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                                                                                                                                                                                                                                                              SEQUENCE OF 167 195 FROM N.A.
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13 AUG 1587 (Rel. 05, Last sequence update)
13-JUN-2002 (Rel. 41, Last amoutation update)
Interferon omega: 1 procursor (interferon alpha 11 I).
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                                                                                                                                              or send an email to licensewisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Himmler A., Hauptmann R., Adolf G.R., Swetly P.: "Molecular cloning and expression in Escherichia coli of equine type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-87053170; PubMed-3022999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mammalia; Eutheria; Perissodaetyla; Equidae; Danus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Equus caballus (Horse).
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Plam: PF00143; interferon; 1.
                                                                                                                                                                                                                                                                     the European Bioinformatics Institute. There are no restrictions on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                       M14544: AAA30955.1;
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Pred. No. 1.2e-17
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EMBL: A15991 PIR: E24912;

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                                                                                                                                                                                                                        Martal J.L., Chemo N.M., Huynh L.P., L'Haridon R.M., Reinaud P.B. Ghillowet M.W., Charlier M.A., Charjedny S.Y.; Fiberiany a novel subtype I IFML Structural characteristics, non-addquitous expression, structure-function relationships, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (A)-MAY-2000 (Rel. 9, Fredred)
30-MAY-2000 (Rel. 9, List somewhere update)
30-MAY-2000 (Rel. 49, List annotation update)
Interferon tau precursor (IFN Lau) (Trophoblast protein-1) (TP-1)
(Inophoblustin) (Antiluteolysin) (Trophoblast antiluteolytic protein).
                                                                                                                                                               Biochimie 80:755:777(1998)
                                                                                                                                                                                            presumancy hormonal embryonic signal and cross-species therapeutic
potentialities.";
                                                                                                                                                                                                                                                                                              MEDILINE - 4-3081896: PubMed 4865448;
                                                                                                                                                                                                                                                                                                                                                                 "Production of interferon by the conceptus in red deer Cervus claphes.":
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDITINE 99273269; PubMed 10341723;
Demmers K 1 . Kalur S - Deakha D W
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                                                                                                                                                                                                                                                                                                                                                 Reprod. Fertil. i15:59-65(1999).
HECOGNITION OF PREGNANCY, INTERACTS WITH ENDOME, RIAL RECEPTORS, PROBABLY TYPE I INTERFERON RECEPTORS, AND BLOCKS STREAGEN RECEPTOR EXPRESSION. PREVATINE THE PERFORM INDUCED INVERASE IN OXYTOCIN REDEPTOR EXPRESSION IN THE ENDOMETRIAL RELEASE OF THE LUTBOLYTIC SUPPRESSION OF THE FULL ALTER FOR THE RECRESSION OF THE FORMORE PROSLACIAMENT FET ALTERIA, HINDERING THE RECRESSION OF THE CORPUS, LUTBER, CARES, AND THEFTISTE A RETERM OF CVARTAMENT OF CARTAMENTS. THE STANDARD RECORDERS LUTBER, AND A POSSIBLE DIRECT EFFECT OF TRATEGORY OVERTAMENTS.
                                                                                                                                          FUNCTION: FARANKINE BORMONE FRIMARLY RESPONSIBLE FOR MATERNAL RECEPTOR
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21882 MW
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Pred. No. 3.8e-16;
Mismitches 53;
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Matches
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PREVIOUS PRINCIPAL STAFF MALASE BECKLOAD BEAUTY FRICHARMY.

PREVIOUS CHILL STAFF MALASE BECKLOAD BEAUTY FRICHARMY.

IF MISCELLANDERS IN THE GOUNDAMY AND HOLDES THERE YEV AVED FROM TEN-ORGA CENES IN THE ROTHANDIA AND HAVE ON THE ROMANNIAN LA SEQUENCE OF THE ROMANNIAN LA SEQUENCE ON THE ROMANNIAN LASTICAL AS TAKERS AND HAVE AND THE SHAFT AND THE ROMANNIAN LASTICAL AS TAKERS AND HELLA SEQUENCE ON THE BEAUTY AND THE 
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or send an email to licensessist sab.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMART; SMOOU76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ptam; PF00143; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL: AJ000638; CAA04193.1; HSSP; P01563; 2HTE.
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19 KLIWOINGRL - EYCLKDRMNEDIPEEIKOLOOFOKEDAALTIYEMIONIFAIFRODSSS 76
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ANTIPROLIPERATIVE POTENTY CONCURRENCY WITH PARTICULAR WIZK
CYTOLOXICLLY, HIGH ANTIBUL LYLL, ACTIVITY AND IMMUNOMOBILATORY
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38.9%; Prod. No. 1.4e-15;
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IF G1_JUL-1993 (Rel. 05, Created)

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IF T15_JUN-2002 (Rel. 41, Last annotation update)

IF T15_JUN-2002 (Rel. 41, Last annotation update)

IF INOL-1993 (Rel. 41, Last annotation update)

IF INOL-1993 (Rel. 41, Last annotation update)

IF Likerierun omedari precursor (Interferen ulpharifi).

CN HOMO Sapiens (numan).

SN Echarysta, Metazoa, Chordafa, Crabiata, Vertebrata, Buteteostomi:

O'C Mammalia: Eutheria: Primates; Catarihidi; Hedinidae: Homes.

N BCELLarinalD-9605;
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29. SSABIRITAN, GODINERAS OVERANIO CORANGO CORANA CONTROLO CONTROL

98 AAWDTTLLEGTFTGLIIGGLIDLIDAGLGGVMGKELSTILVEMGETTVKKKPGGTIIVYTGFK 157

ISWNETIVENGLANVYBE INBUKEVESEKLEKSEFE FOR ALMASSIB KRYVERELBYLKAK 136

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDITINE RUTOROUST FORMAN N'Y STATEMENT TO SECULATION OF THE TOP O
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                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS: PROUZS6:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleus Acids Res. 13:4739-4749(1985)
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"A novel class of booman type I interferons.";
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Chinese bansier every cells and characterization of the recombinant
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     hes 's: Consercity 38.
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Biol. Chem. 265:920-9295(1990).
SDECELLHAR LEGATION: Secreted.
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816174; 816174;
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A12140;
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01-APR-1988 (Rel. 07, Created)

01-APR-1988 (Rel. 07, Last sequence update)

15-JUN-2002 (Rel. 41, Last annotation update)

Interferon omeda-1 precursor (Interferon alpha-HII) (IFN omeda el).
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InterPro; IPR000471; Interteron_abd.
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MEDLINE=85187974; PubMed=2985969;
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Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bocoidea;
                                                                                                                                                                                                                                                                                                                                                                                      Cytokine; Antiviral; Multigene tamily; Signal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SMART; SM00076;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed.
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9 Ę

Matches

57; Conservation

20: Mismarches

59; Indels

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Gaps

12

9

137 EYSHCAWTTVRVETLRNFYRINRLTGYLR 165

158 GYSDCAWEIVRLEIMRSLSSSTSLØERLR 186

14-AUG-1987 (Rel. 05, Created) 14-AUG-1987 (Rel. 05, Last sequence update) 15-JUN-2023 (Rel. 41, Last amotation update) Intelleron alpha-1 precursor.

INA1_HORSE

STANDARD

184 AA

Enkaryota: Metazoa: Chordata: Craniata; Vertebrata: Enteleostomi:

Equas caballas (Horse)

Mammalia: Eutheria: Perissodaetyla: Equidae: Equus

NCH1_1uxID=9796;

SEQUENCE FROM N.A. MPDIINE-87053170: PubMed=3022999;

Hauptmann R., Adoll h.k.

Switty I.

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DNA 5-345-356 (1986).

-I- FUNCTION: PRODUCTO BY MACROPHAGES, LEW-ALPHA HAVE ARTIVIRAL
-I- FUNCTION: PRODUCTON STIMULATES THE PRODUCTION OF TWO ENTYRES:
A PROJECU KINASE AND AN OLIGOADENYLATE SYNTHETASE.
A PROJECULAR LOCATION: Secreted
-I- SUBJULGARITY: BELONGS TO THE INTEREFRON ALFHA, BELA AND DELTA
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or send an email to license@isb-sib.ch).
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52 CLKDRNDFGFPQEVFDGNQFRKPQAISAVHETIQQIFHLFSTKMSSAAWDESLLDKLYTG 111
                                    31 CLKDRMNFDIPEEIKQLQQFQKEDAALTIYEMLQNIFAIFHQDSSSTGWNETIVENLLAN 90
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Himmler A., Hauptmann K., Adolf G.R., Swerly P.;
"Molecular eleming and expression in Escherichia coli of equine type
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L3-AUG-1987 (Rel. 05, Created)
L3-AUG-1987 (Rel. 05, Last seq.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the Buropean Broinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way non-profit institutions as long as its content is in to way notified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isn.sib.ch/annoinercorsend an email to licensewisb-sib.ch).
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                                            Jocal Similarity
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              151 LRNF 154
                                                                                                                                                           31 CIKDEMBEDTEEEIKOLOOPOKEGAALTIYEMIGNITTATERODSSSTOWNEIIVENILAN 90
                                                                                  91 VYHQINHLKTVLEEKLEKFDFT KGALMSSLHUKKNYGKILHYLKAKEYSHCAWTIVRVEI 150
                                                                                                                       52 CLKPENDEGEPQEVEDGNQEPKPQAISAVHETIQQIFHLESTDGSSAAMDESLLDKLYTG 111
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39.5%; Pred. No. 8.1e-15;
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PIR: A24912; IVHOA1. EMBL; M14540; AAA30953.1; -.

PO1563; 2HIE

SMART: SM00076; IFabd; 1.
PROSITE: PS00252; INTERFERON_A_H_D; 1
Egy, From Antivital: Multidone family; Signal.

Protom: PD000550; Interteron_abd; 1.

PRINIS: PRO0266: INTERFERONAP Piam; PF00143; interferon;

InterPro: IPR000471; Interferon_abd.

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Query Match Matches

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Conservative

29.3%; Store 254; DB 1: 3).5%; Prod. No 8 1e-15;

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27; Mismatches

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SEQUENCE

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BY SIMILARITY. INTERFERON ALPHA-1.

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Search completed May 6, 2003, 09:52:46 lab time : 9 secs

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SUMMARIES

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A.Closs references. GR.JCO218, GR.KGC616, GF.Hilli29, NID:418626; FREG.88602 R.Heughton, M.; Stewart, A.G.; Noel, S.M.; Emfare, J.S.; Earon, M.A.W.; Smith, J.C.; Nucleic Acids Res. 8, 1913-1931, 1980 A.Title: The amino-terminal sequence of human fibroblast interferon as deduced from a A.Reference number: A93700; MUID:81053854; EMID:6159597 A.Accession: A93700 A.Molecule type: mRNA A.Residues: 1 68 SHC2>

A. Molecule type, mRNA A. Residues, 1 187 (Hef)

A, Accession: A93706

28.3 195 2 147968 28.3 195 2 147968 28.3 195 2 147966 28.1 195 2 A39505 28.1 195 2 A39505 28.0 195 2 A61404 28.0 167 2 F25913 28.0 169 2 1741914B 28.0 199 1 1741924 28.0 189 1 1741924 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 28.0 189 2 152162 27.7 195 2 146237	45 239	34	-			_		_			35 24		-			_
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ALIGNMENTS

A.Title. The complete amino acid sequence of buman fibroblast interferon as deduced of A.Reference cumber. A94706, MUTD:91054720; FMID:6159680 A.Accession: A93706	
A.Cross references. SR V00516, NID:q22735, FIDN:CAA2407.1; FID:q42746 R:Houghton, M:: Baton, M.A.W.; Stewart, A.G.; Smith, J.C.; Dorl, S.M.; Cartlin, G.H.; Nucleic Acids Ros. B. 2885-2894, 1980	
A:Molecule type: DNA A.Kesidaes, 1 187 <puk></puk>	
A. Relocence nuclear. A33225, MCTD:80244542; FMED:6157094 A:Accession: A33225	
Richard 285, 542-547, 1980. In the experience of a human dibroblast intertains and structure A. The Communication of the communication	
A;Accession: A91468 A;Molecule type: mRNA	
A;Title: The nucleotide sequence of human fibroblast interferon cDNA. A;Reference number: A91468; MUID:81005095; PMID:6157601	
R;Janiquchi, T.; Gino, S.; Fujij-Kuriyama, Y.; Muramatsu, M. Gene 10, 11-15, 1980	
A; Molecule type: DNA A; Rosidues: 1-187 *ONN>	
A:Accession: A93887	
A:Title: Structure of a chromosomal gene for human interferon beta. A:Reference number: A93887	
Proc. Natl. Acad. Sci. U.S.A. 78, 5365-5369, 1981	
A:Cross-references: GB:V00535; NID:q32639; FIDN:CAA23736.1; PID:q32640	
A;Molecule type: DNA A;Residues: 1–187 <law></law>	
A:Accession: A93721	
A,Title. Human fibrobiast interferon gene lacks introns. A:Reference number: A93721: MUID:81168952: FMID:6164984	
Nucleic Acids Res. 9, 1045-1052, 1981	
C.Fate. 18 Aug 1981 #Schwance_Folls.n 18 Aug 1981 #Sch_Jahre 96 % 1200 C.Accession A9771, A9987, A91468, A97355, A6856, A93756, A9276, COAFFG, 156815,	
Interferon beta-1 precursor (validated) - human C:Species: Homo sapiens (man)	
RESULT 1	

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interferon beta I precursor—horse
N:Alternate names: EqIEN beta I: type I interferon
C:Species: Equus caballus (domestic horse)
C:Date: 28 Dec 1987 #sequence_revision 28 Dec 1987 #text_change 22 Jun:1999
APPROSS references: GB:MI4546; NID:g164228; PIDM:AAA20954.1, FID-g164229
                                         A: Residues: 1 186 - HIM.
                                                                                                      A:Accession: G24912
                                                                                                                            A:Title: Molecular cloning and expression in Escherichia coll
A:Beterence number: A90956; MUID:87053170; PMID:3022999
                                                                                                                                                                                K.Himmler, A.: Houptmann, R.: Adoll, G.R.: Swetly, P. DNA 5, 445 (55, 1986)
                                                                                                                                                                                                                                                         ChAccession: 324912
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A:Molecule type: mRNA
A:Residnes: 1 187 - RES -
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1. Inferteron Res. 5, 521-526, 1985
A:Inferteron alpha-1 and beta-1 genes.
A:Inferteron alpha-1 and beta-1 genes.
A:Reference number: 156315; MUID:8603585; PMID:2414376
A:Accession: 156315
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A:Note: the loss of Tys:162 (and of the ability to form the essential disulfide bond) in
R:Otsumi, J.; Mizuno, Y.: Hosoi, K.; okano, K.; Sawada, R.; Kajitani, M.; Sakai, I.; Nar
Eur. J. Hiochem. 181, 545-553, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;52-162/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E:1 21/10main: signal sequence #status predicted <SIG> E:22 187/Product: interferen beta-1 #status experimental <MATS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A:Cross references: GBB:120522; OMIM:147640
A:Map position: '921 '921
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Addition Assignment of the disulphide bonds of leukocyte interferon Added trender number: Added: MULD:BII28086; PMID:6162107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nature 289, 506 557, 1981
                                                                   Molecule type: mRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 EMEGNIFATERGOSSSTOWNETTVENELLANVYHOTNHEKTVLEFKTEKEDETØGALMSSE 120
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95.8%;
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    Mismatches

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E:22-186/Product: interferon beta 2 #status predicted <MAI>
E:52-161/Disulfide bonds: #status predicted
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A; Accession: A01840
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Bio/Technology 2, 458 464, 1984
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C:Dato: 15 Nov 1984 *Degience_recision 15 :
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        Query Match
        53.5%;
        Score 463.5;
        DB 1;
        Length 186;

        Best Local Similarity
        57.9%;
        Fred. No. 1.5e-31;
        Indels
        1

        Matches
        95;
        Conservative
        25;
        Mismatches
        44;
        Indels
        1

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142 ERKYYENLYQYLKSKEYNPCAWTYVEVQILENESELTRITOYLR 185
                           123 KRYYGRILHYLKAKEYSHCAWTIVRVEILRNEYRINRLTGYLRN 166
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                                                                                                                83 MLQQIENTLTRDESSTGWSETTLEBLLEELYEQMNHLEPIQKEIMQKQNSIMGD-FTVLH 141
                                                                                                                                                                      62 MIQNIFAIFRODSSSTGWNETIVENLLANVYHQINHLKIVLEEKLEKEDFTRGALMSSLH 121
                                                                                                                                                                                                                             23 SYSLLREQQRRSLALCQKLLRQLPSTPQHCLEARMDFQMPEEMKQAQQFQKEDAILVIYE 82
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interferon beta-3 precursor - bovine C)species: Bos primigenius taurus (cattle) C)Date: 15-New-1984 #sequence_redision 15-New 1984 #text_change 07 Feb-1997

A:Title: The structure and bacterial expression of three distinct bovine interferon-b

R:Leung, D.W.; Capon, D.J.; Goeddel, D.V. Big/Technology 2, 458-464, 1984

C; Accession: A01841

A; Molecule type: DNA A; mesidues: 1-186 < LEU

A; Accession: A01841 A; Reference number: A90097

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F)22-186/orosport interferon beta 1 #status predicted <MAI>
F)52-161/Disultide bonds: #status predicted
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A: Posidnes: 1-186 < LEU>
C: Supertamily: interieron alpha
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Blo/Technology 2, 458-464, 1984
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C:Date: 15-Nov-1984 #sequence_revision 15-Nov-1984 #text_change 07-Feb-1997
R:Vodidani, 6.: Coulombel, C.: Doly, J.
J. Mol. Biol. 204, 221-231, 1988
A:Itile: Structure and characterization of a murine chromosomal fragment containing the A:Reterence number: S02020; MUID:89125582: PMID:3221389
A:Accession: S02020
A:Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62 MIQNIFAIFRODSSSTOWNETIVENLLANVYHÖINHLKTVLEEKLEKEDFTRGALMSSLH 121
                                                                                                                                                                                                                                                                                                                                                                                                                            142 LUKYYENLMQYLESKEYURCAWTVVQVQTLINVSFLMRLTGYVRD 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     122 LERYYCRILHYLKASEYSBYAWTIVEVUILENEYRIHKUTCYLER 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23 SYGILEFQQBRSAFVOQKIIOQIHSTPQHOLEAKMDE@VPEFMNQAQQFRKFDAILVIYE 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              83 VIQHIFGILTRDESSTGWSFT11FDLLKELYWQMNRLQPIQKEIMQKQNSTTEDTIVP-H 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62 MICNIFALEPODSSSTGWNEITVENLLANVYHQINHLKTVLEEKLEKEDFTRGALMSSLH 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23 SYSTERFOORSEKESSKEISS ESISSERSTEARMEROMBEEMKORGGFSKESAILVMXE 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 AYAALGALQASSHEQQQKLLWQLNGFFSYTEDPMNFDTPESTKQLQQFQKEDAALTIYE 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   47.1%; Score 408.5; DB 1
48.5%; Pred. No. 5.8e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         49.28; Score 426.5; DB 1; Lem, 1.50.38; Prod. No. 1.8e-28; Indois
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       37; Mismatches 47; Indels
                                                                                                                                                                                                                      : יוור, פסיאוד 1984 #text - באחקה בב-Tin-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 186;
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TRIMANDIVARVIASSYMMSSHIMARMET KROTAKSTI INTOLATORIO TOMOGRATION OF THE TOTAL T 3. YAALBALQASSMEQCOKLLWCLNEELEYTI KIRMNEDLPEELKULUUFORELAALLIYEM -62 g;22-184/Product: interferon beta #status predicted · MAT-

Query Match

guery Match
Best Local Similarity 45.7%;

Conservative

24; Mismatches 62; Indels

3.80-20;

DB 2;

Length 184:

Pred. No. Score 326.5;

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R:Kuga, T.: Fujita, T.: Taniquchi, T.
Hucleic Acids Rcs. 17, 3291, 1989
A;Title: Nucleotide sequence of the mouse interferon-beta gene.
A:KeFerence number. S04201, NUID:8926:775; PM:D:2726460
A;Accession: S04201
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A;Title: Structure and expression of a cloned cDNA for mouse interferon-beta. A;Reference number: A01839; MJID:83265757; PMID:6688252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross references: FMBL:X14029; NID:q51550; PIDN:CAA32190.1; PID:q515'd R:Kuga. T.; Fujita, T.; Taniquchi, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C:Keywords: glycoprotein
F:1-21/Domain: signal sequence #status predicted -810 -
F:22-182/Proguet: interferon beta #status predicted -MAI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A:Cross-references: EMBL:A14455, NID.451538, PIDM:CAA32625.1: PID:a51539
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A: Residues. 1 182 < HIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: A01839
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P:Mocham. Biophys. Res. Commun. 232, 698-701, 1997
A:Title: Isolation and expression of rat interferon beta dene and drowth-inhibitory e
A:Reterence number. JC5424, MUTL.37271887, PMID:6126438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C:Species: Rattus norvegicus (Norway rat)
C:Date: 10-Jun-1997 #Sequence_revisios 18 Jul 1997 #text_chargo 20-hun-2000
C:Accession: JC5424
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                                                                                                                                                                                                                                A;Molecule type: DNA
A-Redidues: 1-184 (YOK)
A-Redidues: 1-184 (YOK)
A:Gross-references: DBBJ:DBJ/919; N:D:q16i693B; FibN:BAA13502.1; Fib:q1616939
C-Commont- This protein exhibits characteristic antivital and antitumor activities
C:Superfamily: interferon alpha
F:1-zi/pomain: Signal sequence Estatus Fiedleted Sig
                                                                                                                                                                         C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      interferon beta precursor - rat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            85 LVERNNESSIGWNEITVVRLIJBELHQQTVFLKIVIEK QEEKLIMEMSSTALHLESYVW 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68 ATERQUISSIGMNETTVEHTLAMVYHJIMHLKTVLEEKLEKEIPPTPYALIGGIULKVYYG 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 38.4%; Score 33; DB 1; Local Similarity 48.4%; Pred. No. 1.1e-20
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Fil 23/bandin: Signal Sequence Estatus predicted +SIG+
E224 195/Freshot (interterior alphatic2 Estatus predicted +MAI+
E224 122 52 162/Freshinde bends: Estatus predicted
Exidizenting site: ourbabels to the Anna Co
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                                                                                                                                                                                                                                                                                                                         Fil 25/4-main; signal sequence estatus predicted (SI)
F) 24/195/Product; interferon alpha II-1 estatus predicted +MAI+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A:Motocule type: DNA
A:Residues: 1 105 - HIM
A:Tooss references: SR:MI4544; NID:q164240; FIBN:AAA30955,1; PID:q164231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Affir by Molecular clearing and extression is Prefer by a restance Affectorence number: A90958; MUID:87058170; PMID:8022999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      K:HimmHer, A.: Hauptmann, R.; Adolf, G.R.; Swetly, P. :NA '. 44' 456, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Interteron alpha II | precursor = horse
N:Alternate mames: EqIFN-alpha II-1; EqIFN-omega-1; type I interferon
C:Species: Equas caballus (domestic horse)
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                                                                                                                                                                                                                  File1/Binding Site. carbohydrate (Ash) (covalent) #Status predicted
                                                                                                                                                                                                                                                                           First 122,52 152/bisultide bonds: #Status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                     "; Keywords: antivital; digraphatein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CrSuperfamily: interferon alpha
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C:Superfamily: interferon alpha
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A: Residues: 1 195 HiM.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "; Accession: F24912
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N;Alternate names: EqIFN-alpha-II-2; EqIFN-omega-2; type I interferon
                                                                                                                 guesty Match
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     hoeal Similarity - 41.
hos - 55. Conservative
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41.1%; Score 270; B4-1; (41.0%; Fried, No. 2e-15; 6: Mismatches 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41.5%
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                                                                                                            198 1; Length 195;
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172 MRSFSSSANLÖGRL 185
                                   151 LKNEYRINKLIGYL 154
                                                                       112 LHQQHDDLMEGLESQTGEEESARTEVAFTLAVERYIBEFERYLTEEKKYSIXTAWETVRVDT 171
                                                                                                                                          91 VYHQINHEKTVLEEKEDFTEGALMSSIHEKRYYÖRILHYLKAKKYSICAWTIVRVEI 150
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A.Title. Two distinct families of human and bovine interferon alpha senes are coordin A:Reference number: A93070; MUID:85187974; PMID:2985969 A:Accession: A93070 C:Species: Homo sapiens (man) C:Sale: 18 Dec 1987 (separate_recision 17 May:1995 (text_classe 08 Dec.2000 C:Accession: A44070: A24020: K24020) (s16174) 540705: A44209, A44619; A34573; B93573; interferon omega-1 precursor (validated)—human N;Alternate names: IFN omega 1; interferon alpha·II 1 (IFN alpha II 1); type 1 interf oon, D.J.; Shepard, H.M.; Goeddel, D.V. Cell. Biol. 5, 768-779, 1985

A;Cross-references: SB.M11003, WHI g184610, PHALAAA52724.1: PHographson A;Experimental source: tetal liver R;Hauptmann, R.; Swetly, P. Nucleic Acids Ros. 13, 4739 4749, 1985 A; Molecule type: DNA A; Residues: 1 110,787,112 195 CAF

A:Title: A novel class of human type I interferons. A:Beforence number: A93573; MUID:85269605; PMID:8894159 A:Accession: A24020 A:Residues: 22×195 <hAU1> A:Cross=references: 3B:X02669; WH0=q32750, FHON-CAA26501.1; FHD:q75808+ A; Molecule type: mRNA

A; kesidues: A; Molecule type: mRNA A; Experimental source: clone P9A2, Namalwa cells (human Burkitt's lymphoma cells) ind Accession, B24020 22:133, '8', 135:195 sHAU2

A:Experimental source: clone E7689, Namalwa cells (human Burkitt's lymphoma cells) in R;Adolf, G.K.; Fruehbeis, B.; Hauptmann, R.; Kalsner, I.; Maurer Fody, I.; Ostermann, Biochim. Biophys. Acta 1089, 167-174, 1991
A:Fitte: Human interferon omega 1. isolation of the gene, expression in Chinese hamst A:Reference number: S16174; MUID:91274345; PMID:1647209 A; Accession: S16174

A; Molecule type: DNA A; Residues: 1-195 < Afol >

A:Cross references: EMBL.X58822, NIB.482706, PIDENTAA41626.1, PID.482707

A: Accession: S40306

A; Molecule type: protein A; Residues: 22-23, (X', 25-33 < ADO2 -

R:Adolf, G.R.; Maurer Foqy, I.; Karsner, I.; Cantell, K. J. Biol. Chem. 265, 9290-9295, 1990 A:Title: Purification and characterization of natural bumum interferon omegal.

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A;Reference number: A35299; MCID.96264123; PMID:1693148 A;Accession: A35299

A; Molecule type: protein A; Residues: 22-33 <ADO>

A: Experimental source: leukocytes

A; Note: evidence for two amino terminals, diyeosylation R;Shirono, H.; Kono, K.; Koga, J.; Hayashi, S.; Matsuo, A.; Hiratani, H.

Biochem, Biophys. Res. Commun. 168, 16-21, 1990 A/TILLE, EXISTENCE and unique N terminal sequence of alpha II (omeda) interferon in n A:Reforence number: A34618; MUID:96226353; PMII::2158314 A:Accession: A34618

A; Molecule type: protein A; Residues: 22-33 <SHI>

A:Note: evidence for two amino terminals C:Comment: Viral injection induces coordinate expression of both alpha I and omewar!

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Astone: GDB:IFNW1
Astross-reterences: GDB:134207; OMIM:147553
Astross-reterences: GDB:134207; OMIM:147553
Astrophysical Sp22-9p22
C. Superfamily: interferon alpha
C. Keywords: antivital; cytokine; alycoprotein
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E)22-195/Froduct. (obsticted cmoq1-) Form form estatus experimental
E)24-195/Froduct. (obsticted cmoq1-) estatus experimental «MAI2»
E)24-122,52-162/Fisalfido bonds: estatus predicted
E)101/Binding site: carbobydrafe (Asn) (covalent) #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        interteron alpha-II-1 precursor - bovine
N:Alternate names: BoIFN-aipha-II-1; BoIFN-omega-1
C;Species: Bos primiqenius taurus (cattle)
C;Pate: 28 Dec-1987 #sequence_revision 28-Dec-1987 #text_change 22-Jun-1999
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Mol. Cell. Biol. 5, 768-779, 1985
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A; Molecule type: DNA
A; Residues: 1-195 <CAP>
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A.Experimental source: panereas
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interteron alpha:1-4 precursor - horse
N;Alternate names: EqIFN:alpha-1-4; type I interferon
C:Species: Equus caballus (domestic horse)
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38.7%; Pred. No. 2.5e-14:
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A:Title: Molecular cloning and expression in Escherichia coli of equine type I intell
A:Reference number: A90956; MUID:87059170; PMID:3022999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E)1-23/Dumain Signal Sequence #status predicted <513>
E)24-184/Product: interferon alpha-1-4 #status predicted <MAT>
E)24-184/Product: interferon alpha-1-4 #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C) Superfamily: interferon alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross_references: GB:M14543; NID:q164224; PIDN:AAA30952.1; PID:q164225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Moderate type: DNA
A; Residues: 1 184 KHIM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             interferon alpha-1-3 precursor - horse N;Alfernate names: EqlEN-alpha-1-3; type (c;Species: Equus caballus (domestic horse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Molecular cloning and expression in Escherichia coli of equino type I interf
A;Reference number: A90956; MULD:87053173, PMIN:3022999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Date: 28-Dec-1987 #sequence_rollsion_8 bc 1987 #text_change 18 Jun-1999 C;Accession. C24912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F.1 22/bemain simul sequence #status predicted <510 · F:24-184/Product: interferon alpha-1-3 #status predicted ·MAI · F.24 122,52-162/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:M14542; NID:q164222; PIDN:AAA;0951.1; PID:q164224; C.Superfamily: interferon alpha
C.Keywords-ran'lyiral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: www.
A; Molecule type: www.
- iduas, 1:184 <BIMS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oberty Match 29.3%; Score 254) DR H: Best Local Similarity 39.5%; Pred. No. 4.1e 44; Matches 49, Conservative 27; Mismatches 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      172 MRSF 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                172 MRSF 175
                                                                                                151 LRNF 154
                                                                                                                                                                                                                                                                      9. ATHATAN TAPATAN TAHATAN AND THE SERVICES OF LATERAL METAPOLICAL TARGET 19
                                                                                                                                                                                                                                                                                                                                                                            52 CLEVENISPREPOFVERRIGINGERKFOALSAMMET FOOTFHI ESTIGISSAAMUESILLUKUFRO 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 CLKERMNEDIPREIKGEGGEGARLTIYEMIGHITAITEGRESTGWNEIIVENILAN 90
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RESULT 14 IVHOA1

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E.Whalley, A.E.: Carroll, R.S.: Imakawa, K.
Geore 106, 201 282, 1991
A.E.: Carroll, and analysis of a gene encoding owine interferon alpha-II.
A.E.: Carroll and Analysis of a gene encoding owine interferon alpha-II.
A.E.: Carroll and A.E.: Carrol
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Cosupertamity: interteron alpha
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NAAlternate names: EqUEN alpha I-1: type I interferon
Expectes: Epus caballos (demestic borse)
Exate: 28 bec 1987 #sequence_revision 28 bec-1987 #text_charge 18-Jun-1999
Sourch completed: May 6, 2003, 09:55:40
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Codeneties:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   where Match 29.2%; Score 25%; DB 2; Length 195; Best Local Similarity 40.4%; Fred. No. 5.3e-14; Matches 55; Conservative 21; Mismatches 60; Indels
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                                                                                                                                     172 RRAFSSTADLQESLRS 187
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                                                                                                                                                                                                                                     151 LRNFYRINKLIGYLEN 165
                                                                                                                                                                                                                                                                                                                      112 H0000001E1011V0AM0EEDSVLIADSPTIMIKRYEQRIBIYIDEKKHSOCAWELVRMEI 171
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                                                                                                                                                                                                                                                                                                                                                                                                        91 VYHQINHUKIVILESELEEFEETALMSSLHEKRYYGETLHYUKAKEYSHCAWIIVRVEI 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SO OLKOFROFOFFREVVNOSQFOKNQIVSVLHEMLQOIFNLLHTARSSAAWNNTLLEELHTA 111
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hes - 49) Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31 STEKTHEMMETH PERTRUIS OF THE PAALTIYEMS ON TEATER OR SESTION HER TOURS AND 190
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89.5%; Pred. No. 4.1e-14;
ative 27; Mismatches 48;
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Job time : 28 sees

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Milimum DB seq length: ປ້ອນດຸນຄຸດຄຸດ
Maximum DB seq length: ປ້ອນດຸນຄຸດຄຸດ
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Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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stay in the vasculature for longer periods of time, has increased
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inflammatory disease: autoimmune disease; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 867; DB 21; 105.0%; Pred. No. 1.2e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Brickelmaier M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rital intertions and angiogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Whitty A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lndels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>..</u>
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antiproliterative activities which are disproportionately low with recspect to receptor binding, compared to wild type IPN-beta la. The mutant can be used to produce IPN-beta fusion proteins.

Note: The present sequence is not shown in the specification but is derived from wild type hamas. IPN-beta sequence found in page 46.
                                                                                                                                                                                 helices A, B, C, D or E, or loops AB, OD or DE were assessed for receptor binding and functional activities e.g. antivital and antiproliterative activities. The Al mutant shows antivital and
                                                                                                                                                                                                                                                                                                                                                                     tusion protein is useful for inhibiting angiogenesis in a patient It may also be used to treat multiple selecosis, librosis, inflammand autoimmune diseases, cancers, hepatitis and viral infection about the content of the content of
                                                                                                                                                                                                                                                                                                                                                 characterised by neovascularisation. The present sequence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                  The patent discloses fusion proteins comprising glycosylated interteron beta (IFN beta) capacially IFN beta la, linker groups and non-IFN-beta proteins, especially an immunoalcondin (1g) protein. The
                                                                                                                                                                                                                                                                                             mutating residues in the helix A of wild type sequence
                                                                                                                                                                                                                                                                                                                          a human interferon-beta alamine substituted mutant Al generated by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page -; 82pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WET: 2000 339654/29.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Misc-difference 11
                                                                                                                                                                                                                                                                    The Ala/Ser substituted mutants of IFN beta having substitutions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and logenes is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fusion proteins comprising interteron-beta-la useful for inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BloJ ) BIOGEN INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Runkel L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9908-0120237
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Zlabel= Helix_F
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135..140
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label Helix_B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= AB_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Brickelmaier M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Wild type Ser is substituted by Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Wild type Ard is substituted by Ala"
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                   The present sequence represents human interferon beta la (1FN-betala) protein. The protein is used to produce a composition of (1FN-betala) protein. The protein is used to produce a composition of comprising a glycosylated IFN beta completed to a see raturally-occurring or polymer restaining a plyalkylone glycol. The composition has enhanced or active IFN-betal. The polymer IFN betala conjugate has the shility rocative iFN-betala resolution, reduced immunoquality, protection of the modified or stability in solution, reduced immunoquality, protection of the modified or IFN-betala from proteolytic digustion and subsequent abolition activity, and increased thermal stability. The polymer-based conjugates are useful or at ibrosis, lupus and multiple sclerosis. These may also be used in the confidence of the second of viral diseases, as well as in the treatment of anglogenic of diseases. IFN-betala is useful as an agent for the treatment, remission or attenuation of a disease state, physiological condition, symptoms or eticloquical factors, or for their evaluation or diagnosis. The IFN-betala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 166; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New glycosylated interferon-beta-la coupled to a non-naturally occurring polymer containing a polyaltylone glycol (seful for treating e.g. tumors, autoimmune disorders, viral infections and angiogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             virul disease; angiogenic disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer; autoimmune condition; fibrosis; lupus; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Interferon beta la, IFN betala; polymer; polyalkylene ylygol; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Amino acid segennee of human interferon beta la protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1: Page 32: 73pp: English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
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tive 0; Mismatches 0;
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muitiple seletosis, inflammator, disease; acteimment disease; cuncer;
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                                                                               (BIOJ ) BIOGEN INC
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Local Similarity 97.08;
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         Brickelmaier M.
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                             16 64 1 834 91
18661 120 91
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                                                                                                                                   15 OCT 1999;
                                                                                                                                                                                                                                                                             Wo200013472 A2
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61 EMIQNIFAIFNJOSSTOWNFTIVFNI FANVYBJINHEKTVLEEKEER EIGJALMSSL 120
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97.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY70908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 96.1
Matches 160; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                             Misc-difference 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a human interferon-beta alanine substituted mutant H93A. The Endant was analysed in antivital assays to assess the effects of mutating the histidines which chelate zinc in the crystal structure dimer. The His mutants relained wild type activity suggesting that zinc-mediated dimer formation is not important for IFN-beta activity. Note: The present sequence is not shown in the specification but is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tusion protein is useful for inhibiting angiogenesis in a patient. It may also be used to treat multiple sclerosis, fibrosis, inflammatory and autoimmane diseases, cancers, heyatilis and vital intection characterised by newsascularisation. The present sequence is
WO200023472-A2
                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                             AAY70908 standard; Protein; 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The patent discloses fusion proteins comprising alycosylated interferon beta (ITW beta) especially ITW beta la, linker aroaps and non IFW beta proteins, especially an immunoglobulin (19) protein. The
                                                                                                                                       Homo sapiens
                                                                                                                                                                           hepatitis; viral intection; neovascularisation; IFN heta la
                                                                                                                                                                                             multiple sclerosis; inflammatory disease; autoimmune disease:
                                                                                                                                                                                                                cytostatic; virucide; hepatotropic; antiangiogenic; treatment; tibrosis
                                                                                                                                                                                                                                                       Human; interferon-beta; IFN-beta; immunoglobulin; tusion protein; mutant
                                                                                                                                                                                                                                                                                              Human interferon-beta alanine substituted mutant H97A.
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                                                                                                                                                                                                                                                                                                                                                                            AAY70908;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 1; Page
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (AAY70871)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 HEKRYSCHELHYLKAMETYSHCAMETYKKETELKETYKETARETIKH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ved from wild type human IFN beta sequence found in page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MAYAALGALQASSNEQTOKILIMOLNGELEYCLKDEMNEDIPEEIKOLQQEQKEDAALIIY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           166 AA;
                                                                                                                                                                                                                                        antimoloretie:
                                     /note "Wild type His is substituted by Ala"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96.0%;
96.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ): Mismatches
                                                                                                                                                                                                                                    antiintinmeatory: immunesuppressive
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Prod. No. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-69;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tusion protein is useful for inhibiting angiogenesis in a patient. The may also be used to treat multiple sciencis, fibrosis, inflammatory and autoimmune diseases vancers, hepatitis and viral interferon beta alanino substituted mutant 1970.

The mutant was analysed in antiviral assays to assess the effects of mutating the histidines which cholate alan in the crystal structure of mutating the histidines which cholate alan in the crystal structure dimer. The His mutants retained wild type activity suggesting that alone mediated dimer formation is not shown in the specification but is derived from wild type human IFN-beta sequence found in page 36 coversals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fusion proteins comprising interferon-beta-la useful for inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-439654/29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BIOJ ) BIOGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-001-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The patent discloses insion proteins comprising glycosylated interferon beta (iFN-beta) especially IFN-beta-la, linker groups and non-IFN beta proteins, especially ap immunoglobulin (la) protein. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page -; 82pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (AAY70871).
                                                                                                                                  angiogenesis; antisclerotic; antiinflammatory; immunosuppressive; cyrostatic; viracide, hepatotropic; antiangiogenic; treatment; fibrosmultiple sclerosis, inflammatory disease; autoimmune disease; cancer;
                                                                                                                                                                                  Human; interferen beta: IFN-beta: immunoglebulin; fusion protein; mutant;
                                                                                                                                                                                                                 Human interferon-beta alanine substituted mutant H121A.
                                                                                                                                                                                                                                                     31-JUL-2000 (first entry)
                                                                                                                                                                                                                                                                                       AAY70404;
                                                                                                                                                                                                                                                                                                                     AAY70909 standard; Protein; 166 AA
                Misc ditterence 121
                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                      121 HERRYSTETTHY KAKEYSHOAWTUUVETERNEWENDETOYTEN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       y Match
Local Similarity 96.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                  121 HLKEYYGEILHYLKAKEYSHCAWTIVEVEILPNEYPINRUTGYLEN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CT_LMC_NIFA(FSQCSSSSWNFTTVFNLEANVYHG(NAKTVLEEKTEKFSSTBOALMSSL-129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 EMIQNIFALFECOESSTEWNETTEVENT ANVEHOTNHUKTVLEEKLEKFOSTPGALMSSL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MAYAALGALQASSNEUGOKILMOLNGELEYGIKDEMNEPTPEETKQIQQEOKEDAALTIY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   160:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           166 AA:
                                                                                                                    viral intection: necvascularisation; IFN-beta-la
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                                 I ocation/Qualitiers
/note= "Wild type His is substituted by Ala"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 832, DB 21, pred. No. 2e-69; wismatches 5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                               fibrosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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Interferon beta la; IFN-hetaia; polymen: polyalkylene alycol: tumon; cancer; autoimmune condition; fibrosis; hupus; multiple seletosis;

viral disease; angiogenic disease.

Alanine mutaut of human interferon beta la protein.

21-AUG-2000 (first entry)

AAY84962;

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The patent discloses lusion proteins comprising alycosylated of interferon-beta (IFN-peta) especially in Factorial in Timeor arrows and con-IFN beta proteins, especially an immunoglobulin (14) protein. The fusion protein is useful for inhibiting antingenesis in a patient. Of It may also be used to treat multiple sciences, librosis, inflormatory of and autoimmune diseases, cancers, hepatitis and viral infection of characterised by neovascularisation. The present sequence is conscient and interferon-beta alanine substituted mutant #121A.

CC an human interferon-beta alanine substituted mutant #121A of the fusion of the first which chalate fine in the crystal structure of mutanting the histidines which chalate fine in the crystal structure of incremediated dimer formation is not important for IPN-beta activity. Once the present sequence is a first shown in the specification but is considered from wild type luman IFN beta sequence found in page 46.
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                                AAY84962
                                                                             RESULT 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-339654/29
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AAY84962 standard; Protein: 166 AA
                                                                                                                                                                                   121 ALKRYYGRILHYLKAKEYSHCAWFIVKVEILKNFYRINKLIGYLKN 156
                                                                                                                                                                                                                                                                121 HLKRYYGRILHYLKAKEYSHCAWTIVRVEILRNEYRINRLIGYLRN 156
                                                                                                                                                                                                                                                                                                                                         61 EMIGNIFALFRGESSSIGMNETTVENLI ANVYHQIJHH KTVLEKKILKERFTRGALMSSI. 120
                                                                                                                                                                                                                                                                                                                                                                                                          61 EMIĞNIFATERÇIJSSSİĞMNEFIYENLI ARVYBÇI BILKTYLERKI ŞERDIŞTRANI MSSI 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             I MAYAALGAGAASSHEVOVELLANGLIGEGEVET ELEMBIT TETETIKOLOGGOVEDAALTIY 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     166 AA;
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AAY70884;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Sim
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AAY/19884 standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modified IFN beta la from proteolytic digestion and subsequent abolition activity and increased thermal stability. The polymor-based conjugates are useful for treating tumors and cancer, as well as autoimmune could lone such as librosis, lupus and multiple sclerosis. These may also be used in the treatment of vital diseases, as well as in the treatment of uniformity diseases. IFN bedala is useful as an agent to the librosis of the latest screen the latest screen and the latest screen as a latest screen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    specification; it was created using information provided
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 EMIGNIFALEKGOSSSEGWNETTVENILLANVYHGINHLKTVLEEKLEKEDETRGALMSSI 120
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    Mismatches

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Pred. No. 3.1e-69;
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inactions teta (IFA beta) experially an immunoal obtain (14) periods and non-IFA beta proteins, especially an immunoal obtain (14) periods. The fusion protein is useful for inhibiting analogenesis in a period. It may also be used to treat multiple sclerosis, librosis, inflammatory and aritoimmuno discusses, cancers, bepartits and viral intertion characterised by neovascularisation. The present sequence is a ballon beta alamine substituted mutant but sensited by mutating residues in the DE loop of wild type sequence. The Ala/Ser stabilitated mutants of IFA-beta having substitutions in helices A, B, C, D or E, or loops AB, Cb or DE were assessed for receptor binding and functional activities of the DE loop of the activity is some antiproliferative activities but its antiproliferative activity and both antiproliferative activities.
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activities are lower relative to receptor binding, compared to the
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                                                                                                                                                                                                                                      The patent discloses fusion proteins comprising discosylated
                                                                                                                                                                                                                                                                      Example 1; Page -; 82pp; English.
                                                                                                                                                                                                                                                                                                                   Fusion proteins comprising interferon-beta-la useful for inhibiting
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                                                                                                                                                                                                                                                                                                                                                                                                                (BIOJ ) HIOGEN INC
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9905-0120237
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135..140
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141...166
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Matches 159, Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  wild-type sequence. The mutual is used to produce IFN-beta fusion proteins. Note: The present sequence is not shown in the specification but is derived from wild type human IFN-beta sequence found in page 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human: interfered Leta. Antibody: multiple sclerosis: gene therapy: viral intection; viral hepatitis; cancer; breast cancer; inflammation; crobm's disease; acute myeloid leukaemia; Hodakho's disease; ulcerative colitis; immunomodulation; mutant; mutein; N4K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAUU00069 standard: Protein; 166 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human interferon beta mutant N4K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-MAY-2001 (tirst entry)
                                                                                                                                                                                                                                                                                               26 · NeW - 1999; 99DK - 0001591
07 - PEB - 2000; 2000DK - 0000194
07 - MAR - 2000; 2000DK - 0000363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W0200115736-A2
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comprise at least one first non-polypeptide group covalently attached
                    The sequence represents Human interferon beta mutant N4K. Conjugates of the invention calculating interferon beta activity
                                                                                                                           multiple sclerosis comprises a non-polypeptide group covalently
                                                                                                                                                                             WF1, 2001-218488/22
                                                                                                                                                                                                           Pedersen AH, Schambye H1, Andersen KV, Bornaes C,
                                                                                                                                                                                                                                                                                   14-APR-2000: 2000PK-0000642
                                                                                                                                                                                                                                                                                                                                                     27 - AUG - 1999 ;
21 - pr 1 - 1999 ;
                                                                                                                                                                                                                                                                                                                                                                                                         25 - AUG - 2000: 2000WO-DK00471
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                                                                         Claim II; Page - ; 108pp; English
                                                                                                                                          A conjudate exhibiting interferom beta activity ascial for treating
                                                                                                                                                                                                                                               (MAXY-) MAXYGEN APS
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                                                                                                           attached to an interferon beta polypeptide -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 EMEQNIFALFRODSSSTGWNETTVENELEANVYHQINHLKTVLEFKLEKEDFTFGALMSSL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 EMILONIFATERODESSIGWNETIVENLLANVYHQINHLKTVLEEKLEKEDETRGALMSSL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             I MAYAALGALQASSNEQOOKLLWOLNGRLEYCLKDEMNEDIPEETKQLQQFQKEDAALTIY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     166 AA;
                                                                                                                                                                                                                                                                                                                                                         9905-0160782
                                                                                                                                                                                                                                                                                                                                                                         99DK-0001197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note: "Wild-type Asn replaced with Lys"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95.7%; score 830; DB 31; Length 166; 95.8%; Pred. No. 3.1e-69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1: Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tinde S
                                                                                                                                                                                                                    Rasmussen PB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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cc differs from wild-type haman interferon beta polypeptide, the amino acid sequence of which cc differs from wild-type haman interferon beta in at least one introduced group for the first non-polypeptide group. The invention also concerns cc proup for the first non-polypeptide group in invention also concerns cc half-life and/or serum half-life of an interferon beta polypeptide cc comprising introducing an amino acid residue constituting an attachment cc group for a first non-polypeptide group into a position expused at the cc surface of the protein that does not contain such a group and removing cc an amino acid residue constituting an attachment cc mon-polypeptide group and subjecting the solitical pertise to compute the non-polypeptide group. The conjugate and a cell culture cc with the non-polypeptide group. The conjugate and a cell culture cc with the non-polypeptide group. The conjugate and a cell culture cc with the non-polypeptide group. The conjugate and a cell culture cc disease, especially multiple sclerosis, and for treating mammals having cc insulated proteins may be used for gene therapy. The DNA and proteins can cc leukaemia, Hoodkin's disease and ulcerative colitis and for group for a few proteins against intertorns (e.g viral bepatitis), conver cell munomodulation.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Бþ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAP30219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
Matches 159; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Note: The present sequence is but shown in the specification but is derived from the human interferon beta sequence given in AADDOOBE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAP30219 standard; Protein: 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunomodulation.
                                                                                                                                                    19-JAN-1982;
03-FEB-1983;
                                                                                                                                                                                                                                                                                        WO8302461-A
                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                   Hybrid interferon; antiviral; therapy; cancer; tumour
                                                                                                                                                                                                                                                                                                                                                                                                          pDM101/trp/beta-1.
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence of interferon (HulfN) -beta-1 encoded by plasmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAY-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAP30219;
                    WPT: 1983-723186/30
                                                       Mark DF, Creasey AA
                                                                                          (CEIU-) CETUS CORP.
                                                                                                                                    15-JUL-1985;
                                                                                                                                                                                                                                                     21-JUL-1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JAN-1983;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 EMLQNIFATERQUSSSIGWNETIVENLIANVYHQIBHLKIVLEERIJEERATERAN MSSI 120
61 EMLQNIFATERQUSSSIGWNETIVENLIANVYHQIBHLKIVLEERIJEERATERAKI MSSI 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              h 95.7%;
Similarity 95.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (tirst entry)
                                                                                                                                      85US-0755265
                                                                                                                                                        83US-0463574
                                                                                                                                                                           82US-0340782
                                                                                                                                                                                                                  83WO-0900607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 830; DN 22; Length 166; Pred. No. 3.1e-69;
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N-PSDB; AAN30152.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bost Local :
               N PSDB; AANSOLES
                                                                                         (CERT) CERTS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INA unit having a nucleotide sequence which encodes [17]. Prof. the AA sequence consists of alpha and beta interferons, Pref. [F1] is (1) the 1-74 AA seq. of HulfPh alpha 1 (and IF2 is the 74-166 AA seq. of HulfPh beta-1) (see AAN40155, AAP40222); or (1) the 1-41 AA seq. of HulfPh alpha ta A (and IF2 is the 44-166 AA seq. of HulfPh beta-1) (see AAN40150, AAP40227); alternativeley IF1 is the amino terminal end of a beta IF and IF2 is the earboxy terminal of an alpha-IF (esp. the 1-24-seq. of HulfPh beta-1 and the 74-167 seq. of HulfPh-alpha-1 (resp. the 1-24-seq. of HulfPh alpha-1 and the 74-167 seq. of HulfPh-alpha-1 (resp.) (see AAN40156, AAP40223). In the examples plusmids pCW5 and pDW1012(1)/2/beta-1 and p-alpha-1AA were used (see AAN40151, AAN40152), AAN40152). Hintle was used to didgest the pNA sequences in the region of similificant bandraps (see AAN40154, AAN40154, AAN40158), AAN30159), and the restriction irraments were ligated to form hybrid DNA.
                                                            Konrad MW. Mark DF
                                                                                                                                              NVF FF
                                                                                                                                                              C'S MAY
                                                                                                                                                                                           CREEL AVM Sn
                                                                                                                                                                                                                                                          изачучтвы А
                                                                                                                                                                                                                                                                                           Build-out it had
                                                                                                                                                                                                                                                                                                                     Expression zector; trp promoter operator; transformed bacteria
                                                                                                                                                                                                                                                                                                                                                  xholl site of p beta l tip.
                                                                                                                                                                                                                                                                                                                                                                                                       Test Ask of 7007
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAPS0252
                                                                                                                                                                                                                            5861 SEL 71
                                                                                                                                                                                                                                                                                                                                                                   Sequence encoded by the sequence between the EcoRI site and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAP 0262 Standard; Protein; 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sedimine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Multiplias hybrid interferon polypoptide(s) \circ with restricted antivitial and cell growth regulatory activities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The insentors claim a multiclass hybrid interferon polypoptide and INA unit having a nucleotide sequence which encodes it. Pret, the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example: Fig 5; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 HLKMYYGMILHYLKAKEYSHCAWTIVRVEILRNEYFINELIGYLRN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ξ
                           60/796950 5861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMIGNIFALFRODSSSIGWNETTVENLLANVYROTNHLKTVLEEKLEKFOFT FORI MSSL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMIONIFATEROPSS FORMETTVENT LANVYHOTNIKKTVLEERLEERIS PECALESSE. 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12h 95.6%; Score B.29; DB 4; Length 156;
al Similarity 95.6%; Score B.29; A.98-69; Length 156;
Per Poused varive 1; Mismatches 6; Indels
                                                                                                                                           15942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TEG AA:
                                                                                                                                                                                                                                                                                                                                                                                                      (updated)
(tirst entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
which is more effective in the treatment of viral or neoplastic
                                                                                                                                  Disclosure; Fig 20; 96pp; English
                                                                                                                                                                                             anti-neoplastic and immuno modulatory agents.
                                                                                                                                                                                                                                                                                                        N-PSDB; AAN50306
                               increased biological activity compared to matural IFN-beta, and
                                                                    The sequence encodes a synthetic interteror beta which has
                                                                                                                                                                                                                                   New modified beta-interferon(s)
                                                                                                                                                                                                                                                                                                                                       WP1: 1985-020165/04
                                                                                                                                                                                                                                                                                                                                                                                                     Bell LD, Boseley PG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUL-1983;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EP131816-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein sequence encoding synthetic interferon beta gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-DEC-1991 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The inventors claim a process for the product of heterologous polypeptide by transformed bacteria. The pret. promoter-operator is trp which controls expression of structural genes encoding polypeptides of a synthetic pathway forming tryptophan, esp. at a conent of $4 mg/l (T-prodetermined furbidity value measured at 880nm, esp. 10-100). The transformed bacteria are esp. E.coli control the plasmid p-betal trp. Example 1 concerns the construction of plasmid p-beta-1-trp for the direct expression of IFN beta under the control of trp promoter-operator.

(Updated on 03-007-2002 to add missing os field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (SEAR ) SEARLE G D & CO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-JUN-1984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-JAN-1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAP50279;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAP50279 standard; protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Interferon-beta; virueide; antitumor; immunostimulant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polypeptide, esp. interteron, prodo, by transformed bacteria cultured in presence of a repressor which is consumed derinal cultured in presence of a repressor which is consumed derinal cultures.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 BENRYYGK EHYTAANEYSBYAWITYRVEITRNIYRINKLIGYERN 166
THILLITHTHILLIHHTHILLIHHTHILLIH THILLIH THILLIHT
121 BEKRYYGETERYEKAREVSBYAWITYANGTERNYA TAKETOLIKU 166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MAYAALGAGARAYAYAYAYA HARILIH HARILIH HARILIH HARILIH HARILIH HARILIH KALILIY 60 HARILIH KALILIY 60 MAYALLAGALAGARAN YANGA KALIMATAN KALILIY 60 MAYALLAGARAN YANGA KALIMATAN KALILIY 60 MAYALAGARAN KALIMATAN KALIMATAN KALILIY 60 MAYALAGARAN KALIMATAN KA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                159; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        83GB-001788u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84EP-0107498
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                                                                                                                                                                                                                                                                                                                                                                                                     Smith Jo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 3,90-69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 829;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                · useful as autiviral
                                                                                                                                                                                                                                                                                                                                                                                                  Hought on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 6; Length 166.
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RESULT 14
AAF51071
ID AAP61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ç.
    Matches 159; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diseases, or immunosuppressed or immunodeficient conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                       /noto
Mise-difference 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-MAY-1991 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAP61071 standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                          /sote- "May be any conservative AA^{\prime\prime} Misc-difference 117
                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference 62
                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Misc-difference 1..6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IL-2: (FN-Beta; colony stimulating factor; CSF 1; tPA: hGr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oxidation resistant mutein of interferon-Beta.
modified peptide has residues susceptable to chloramine T and peroxide exidation replaced with conservative AAs. Mutein is thus resistant to exidisation. Other proteins which may be similarly
                                                                                                                                                  Koths KE. Halenbeck RF, Innis MA;
                                                                                                                                                                                                      05-AUG-1986;
                                                                                                                                                                                                                     05-NOV-1986;
                                                                                                                                                                                                                                                                                                                               AU8652451-A.
                                                      Claim 5; Page 50; 50pp; English.
                                                                              exidn. resistant mutein(s) propd. by replacing
oxidn. susceptible methionine with conservative aminoacid
                                                                                                                     WPI: 1986-239075/37
                                                                                                                                                                           (CETH ) CETHS COMP
                                                                                                                                                                                                                                18-, JAN-1985;
                                                                                                                                                                                                                                               17-DEC-1985;
                                                                                                                                                                                                                                                                        17-JAN-1986;
                                                                                                                                                                                                                                                                                                    9861-700-13
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Query Match 95.6%; Score 829: DH 8: Length 166;
Best Local Similarity 95.8%; Prod. No. 3.90~69;
Matches 159: Conservative 1: Mismatches 6; Indels 0: Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                                                                                                                                                                 the region exhibiting biological activities of interferon beta has been linked to an N-terminal of the region exhibiting biological activities of interferon gamma. By antivitial activity of the conjugate was tested using FL cells sindble views system according to the CDE 50 inhibition method. Antivital activity ranged from 200 H/ml to 18500 H/ml.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conjugates of interferon(s)-beta and gamma - useful as antivirals and anti-cell proliferatives with broader spectrum of activity and obtd. economically by recombinant DNA procedures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 7; p35; 52pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TOPA ) TORAY IND INC
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    Mismatches

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- Search completed, May (c. 2003, $09\,(5\,2)\,24$)of time ($6\,(5\,sees)$

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Gendore version 5 1 4_p5_4578 coppyright (c) 1993 - 2003 compagen Ltd.

OM protein - protein search, using sw model

Run on: May 6, 2003, 09-49-03 ; Search time 8 Seconds (without alignments)
860 634 Million cell updates/sec

Title: Perfect score: US-09-832-658A-25

Sequence: 1 MSYNLLGELQPSSNEQCOKL

..RVEILRNFYRINRLTGYLRN 166

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

112892 seqs, 41476328 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Listing first 45 summaries Maximum Match 100%

Database : SwissProt_40:*

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

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SEQUENCE FROM N.A. SEQUENCE FROM N.A. MEDLINE-81053752; PubMed-6159584: Geoddel D V., Shepard H.M., Yelverton E., Leund H., Stea R., Sloma A., Geoddel D V., Shepard H.M., Yelverton E., Leund H., Stea R., Sloma A., Pestka S.; "Synthesis of human fibroblast interferon by E. coll.": Nucleic Acids Pos. 8:4087-4074(1980). [7]	SEQUENCE FROM N.A. MEDLINE-80254542; PubMed-6157094; MEDLINE-80254542; PubMed-6157094; Devos R., Fiers W.; "Isolation and structure of a human fibroblast interferon wome."; "Isolation and structure of a human fibroblast interferon wome."; Nature 285:542-547(1980). [5] SEQUENCE FROM N.A. MEDLINE-81053720; PubMed-6159580; MEDLINE-81053720; PubMed-81053720; MEDLINE-81053720; MEDLINE-81053720; PubMed-81053720; MEDLINE-81053720; PubMed-81053720; MEDLI	SEQUENCE FROM N.A. SEQUENCE FROM N.A. MEDILINE-8119852; PubMed-6164984; Lawn R.M., Adeiman J., Franke A.E., Honck C.M., Gross M., Najarian R., Goeddel D.V.; "Human fibroblast interform gene lacks introns."; Nucloic Acids Res. 9:1045-1052(1981). [2] Nucloic Acids Res. 9:1045-1052(1981). [2] [2] [3] SEQUENCE FROM N.A. "Structure of a chromosomal gene for human interferon bela."; "Proc. Natl. Acad. Sci. U.S.A. 78:5305-5409(1981). [3] SEQUENCE FROM N.A. MEDILINE-81005095; PubMed-6157601; Taniquichi T., Ohno S., Fujii-Kuriyama Y., Muramatsu M.: "The nucleotide sequence of human fibroblast interferon cDNA.":	HUMAN STANDARD: PRT; 187 AA. FN1574; P01574; 21-JUL-1986 (Rel. 01, Created) 21-JUL-1986 (Rel. 01, Last sequence update) 15-JUL-202 (Rel. 41, Last annotation update) 11-JUN 2002 (Rel. 41, Last annotation update) 11-Lerteron beta precursor (FTM beca) (FTE-oblast interteron). IFNB1 OR IFNB OR IFB. Homo sapiens (Human). Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Enteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. NCB1_TaxiD=9606;

SECUENTE FROM N.A.

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Prints: PRO0143; interferon: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS PROFEMARY is expyright. It is produced through a collaboration between the SWISS Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Karpasas M., Nolte M., Benton C.R., Medet W., Lipscomb W.N., Goelz S., "The crystal structure of human interferon beta it 2.2-A resolution." Proc. Natl. Acad. Sci. U.S.A. 94:11818-11818(1997).
FINCTION: HAS ANTIVIKAL, ANTIBACTERIAL AND ANTICANCER ACTIVITIES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIANE BUSSESSA: PabMed 6159597;
Boughton M., Stewart A.G., Doel S.M. Emtage T.S., Faren M.A.
Smith J.C., Patel I.P., Lewis H.M., Porter A.G., Birch J.R.,
PROSITE: PS00252: INTERFEBON A.B.Lo. L.
Cytokinos Glycoprotein: Antiviral: Signal: Pharmacentical:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            send an email to license ish-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sibile amino acid change in IEN betal abolishes its antiviral
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PHARMACEURICAL: Available under the names Avanex (Biogen), Bestascian (Berlex) and Rebit (Second). Used in the treatment of modified (Bis (MS), Metascon is a slightly modified form of IFNEL with two residue substitutions.
                                                                                                                                                                                                                                                                                                                           VEL R LOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
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                                                                                                                                                                                                                                                                                                                                            V00547; (AAZ4H08.1;
M28622; AAA36040.1;
                                                                                                                                                                                                                                                                                                                                                                                                                   V00546; TAA24807.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Visits 44; CAA24745.11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           V.),,,,,,
                                                                                                                                                                                                                                                        HGN-15434; IFNB1.
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                                                                                                                                                                                                                                                                                          HAMINAT IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seligari P. B.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carey N.H.;
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                                                                                          Interferon_abd; 1.
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                                                                           Cytokine; Antiviral; SIGNAL 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long as its content modified and this statement is not removed. Usage by a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swies listifute of facilitation and the impositions on its the European Mioinformatics institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Marakami Y., Kabaka T., Machizaki M., Kishi M.;
"Gentic structure of feline interferon bota.";
Sabinitted (1970–199) "T. Oriem Mr., Januar, Jaki databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INB_FELCA
Q9N2J0;
    DISULFID
                                          CHAIN
                                                                                                                                                                                                 SMART; SM00076; IFabd; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entities requires a license Jarcement (See http://www.or.send.an.email.tollicenserish.sh.eh).
                                                                                                                                                           PROSITE: PS00252: INTERPERON_A_H, D: 1
                                                                                                                                                                                                                                           ProDom;
                                                                                                                                                                                                                                                                             PRINTS: PR00266; INTERFERONAB
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-!- SUBCELLULAR LOCATION. Secreted.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -1- FUNCTION: HAS ANTIVIRAL, ANTIBACTERIAL AND ANTICANCER ACTIVITIES (BY SIMILARITY).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Felis silvestris catus (Cat).
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15-JUN-2002 (Rel. 41, Läst annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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SIGNAL
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BY SIMILARITY.
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota: Metazoa: Chordata: Craniata: Vertebiata. Euleleostomi.
Mammalla: Eutheria: Cetartiodactyla: Puminantia: Pecora: Rovoldea:
Rovide: Boyinae: Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license approximate (See http://www.lab.slb.ch/announce/or send an email to license@isb.sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lound D.W., Capon D.J., Goeddel D.V.:
"The structure and bacterial expression of three distinct bovine interferon-beta genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INB2_BOVIN
PO1576;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biotechnology 2:458-464(1984).
-!- FUNCTION: HAS ANTIVIRAL, ANTIHACTERIAL AND ANTICANCER ACTIVITIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_LaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bos taurus (Bovine)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FNBZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Interferon beta-2 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141 NIKKYTEK VEYLYAFTYSVOAWTVVHASTIPNSTEERLTDYIQN 186
                                                                                                                                                                                                                                                                           pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                                                                                                                           HSSP; P01574; 1AU1
                                                                                                                                                                                                                                                                                                                                                                                  PIR: A01840: IVB082.
                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; M15478; AAA30580.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -! - SUBUNIT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 HLERYYCKII BYLKAKFYSH TAWTIVKVEIL PNEYFINGITGYLRN 166
                                                                                                          CHAIN
                                                                                                                                     SIGNAL.
                                                                                                                                                                                        PROSTIE: PS00252.
                                                                                                                                                                                                                     SMAPT: SMODDOTE
                                                                                                                                                                                                                                                ProDom;
                                                                                                                                                                                                                                                                                                                                interPro:
SEQUENCE
                       CARBOHYD
                                                     CARBOHYD
                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6) FMIQNIFATEPODSS-THWNETIVENILANVYHQINHLKTVLEEKLEKEDETRGALMSSI. 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22 VSYKLUGEZ: SKOKUSZELIVNI UKTOKYCINDRMUREVDEELKKSOOFICKEEALIVIN 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MSYNLLGELÖPSSNEGYÖKLI WOLNGRIEYYLKDRMNEDIPEETKOLQQEQKEDAALTIY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    - SUBCELLULAR LOCATION: Secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: BELONGS TO THE INTERPERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMFOKIENIESKSTSSTGWNETTVENLLATIHWOKEHLETILEEIMEEENFIWDN-TTLL 140
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                                                                                                                                                                                                                                                PD000550:
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101
131
136
136 AA
                                                                                                                                                                                                                                                                                                                                IPROGO471: Interteron_abd.
                                                                                                                                                                Glycoprotein. Antiviral: Multigene family: Signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
186 AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MONOMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                        TFabd:
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131
                                                                                                                                                                                             INTERPERON A_B_D: 1
                                                                                                                                                                                                                                                Interferon_abd: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             32187 MW
                                                                             185
161
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  22319 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27: Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-LINED (SIGNAC) (ENTENTIAL)
N-LINED (SIGNAC) (POTENTIAL)
N-LINED (SIGNAC) (POTENTIAL)
N-LINED (SIGNAC) (POTENTIAL)
N-LINED (SIGNAC) (POTENTIAL)
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                       N-LINKED (GLONAC. ..) (POTENTIAL).
N-LINKED (GLONAC. ) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                   PROBABLE
                                                                                                                INTERFFRON RETA-2
D9F257C6E3250480 CPC64:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      186 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 94; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 55.3%; Score 482.5; DH 1; Langth 186; Best Local Similarity 57.4%; Pred. No. 1.2e-43;
                  Query Match
Best Local !
 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-AUG-1987 (Rel. 05, Croated)
13-AUG-1987 (Rel. 05, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (Sec http://www.sl./ib b/nn association send an email to licensewisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA 5:345-356(1986).
-!- FUNCTION: HAS ANTIVIRAL, ANTIBACTERIAL AND ANTICANCER ACTIVITIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDITNE=87053170; PubMed 3022999;
Himmler A., Hauptmann R., Adolf G.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Enteleostomi;
Mammalia; Butheria; Perissodactyla; Equidac; Equus.
                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the SWISS Institute of Bioinformatics and the EMBL outstation the European Bioinformatics institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, RETA AND DELLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        I interferons."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Molecular cloning and expression in Estherichia culi of cyalic type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCB1_TaxID 9796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Equus caballus (Horse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Interferon beta precursor (IFN:beta)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INB_HORSE
                                                                                                                                                                                                                                                   InterPro; IPRU00471; Interferon_abd pfam; PF00143; interferon: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14.2 LKKYYFNLVQTLKSKEYNKOAWTVVKVQTLKNESSTITRLTGYLR 185
                                                                  SEQUENCE
                                                                                                                                                       SIGNAL
                                                                                                                                                                       Cytokine: Antivital:
                                                                                                                                                                                                                         Probom; PD000550;
                                                                                                                                                                                                                                                                                                                           EMBL; M14546; AAA30954 l;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SUBUNIT: MONOMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         122 LKHYYGELLHYLKAKEYSHCAWTIVKVETLKNEYFINELEGYLK 165
                                                                                      CARBORYD
                                                                                                     CARBORNE
                                                                                                                       DISULFID
                                                                                                                                        CHAIN
                                                                                                                                                                                          PROSITE;
                                                                                                                                                                                                          SMART;
                                                                                                                                                                                                                                            PRINTS; PR00266; INTERFERONAB
                                                                                                                                                                                                                                                                                             HSSP: PA1574; IAUI
                                                                                                                                                                                                                                                                                                              PIR; G24912; TVHOBI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #4 MEQQIENIDIRDESSIGMSELLAEGGLEELYEGMRHER TQKETM@KOMSIMGD-TTVLH 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 MLQNIFATERQUSSSIGWNETTVENLLAAWYNQTNHAKTVLEKKI EKETETERMIM STAH 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LIS SYSTLERUGERSTATOĞATTARÇITSTIN HOLEARER CAPBEAKÇAÇÇEÇKEDATTATYE 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FAMILY
1 Similarity
97; Conserva
                                                                                                                                                                                        SM00076; IFabd; 1.
E; PS00252; INTERFERON_A_B_D; 1
                                                                      186 AA,
   Conservative
                                                                                                         2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 interferon_abd; 1
                                                                                                                       186
161
                                                                       71882 MW;
                  54.6%; Score 476.5, DB 1
58.4%; Pred. No. 3.9e-33;
                                                                                                                                                                       Glycoprotein: Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30; Mismatches 39; Indels
       27; Mismatches
                                                                    N LINKER (SERMA), (1) (PON LINKER (SERMA), (1) (PON AE9F3ADFCQ06EE6C CRC64:
                                                                                                                       BY SIMULARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Swetly P.:
                                      DB 1; Length 186;
                                                                                          . .) (POTENTIAL)
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSTIES PSOQUES TRADAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS: FRU0286; INTERFEBOUND,
Probom: Fb000550; Interferon_abd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro: [PROUU47]: Interteron_abd
Ptam; PPOUL43; interferon; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HISTOCHUSIONY 2:458-464(1984).
FERROTORIA HAS ANTIVIRAL, ANTIHACTERIAL AND ANTICANCER ACTIVITIES
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                                                                                                                                                                                                                                                                                                                                                                                                           ПАН НЯВ.
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or send an email to license tisb-sib.ch).
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"The structure and bacterial expression of three distinct bovine
interferen beta genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Boyldae: Boylmae: Bos.
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Mammulias Entherias Cetartiodactylas Ruminantias Pecoras Bovoideas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21 JULY 1986 (Ref. 0], last sequence update) 15 JUN 2002 (Ref. 41, last annotation update) Interferon beta (sprecursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NIACE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBL LaxID 991 ()
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Puls77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Stokine; Gly-oprofein; Antiviral; Multidene family; Signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TENES.
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6.2 MIGNIFALEROUSSSIGWNETTVENLLANVYHOTNHLÆTVLEEKLEKEDETRGALMSSLH 121
                                                              24 SYSILREQUIKKSAEVOOKII SEH BETROHOI FAKMOFOVEEMMOADOFEKEDAILVIYE 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 EMPORTLATERATORISMENTATION OF LANCATARIAN OF A STATE OF THE PROPERTY OF THE
                                                                                                 1 MSYNLLOPILGESSKEVEGKELMGLINELLEY TEFFERMANETERE FRGUGGGGGKEAAALITY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
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1 = 1 2 3
                                                                                                                                                                                                                                 51.4%;
52.7%;
                                                                                                                                                                                                                                                                                                                                         22059 MW;
                                                                                                                                                                                                  35: Mismatches 42;
                                                                                                                                                                                                                                 Score 448.5; DB 1; Length 186;
Pred: No. 8.5e 31;
                                                                                                                                                                                                                                                                                                                                                                  N-LINKED (GLONACT . . .) (POIENTIAL) .
N LINKED (GLONACT . . .) (POIENTIAL) .
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64 B 64

122 LKRYYGRILHYLKAKEYEHGAWIIVRVIIILRNIYRINRIGGYLKN 166

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Best Local
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                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP; P01574; IAU1.
InterPro; IPR000471; Interteron abd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; M15477; AAA30579.1; -. PIR; A01842; IVBOB1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entitites requires a license adrenment (see http://www.or.send.an.email.tollicense/isb.sib.ch).
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15-JUN-2002 (Rel. 41, Last annotation update)
Interferon beta-1 precursor.
                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                         Cytokine; Glycoprotein; Antiviral; Multidene family; Sidnal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SM00076;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Probom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00266; INTERFERONAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ptam: PF00143; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -1- SUBCELLULAR LOCATION: Secreted.
-1- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIOLECHNOLOGY 2:458-464(1984).
-I- FUNCTION: HAS ANTIVIRAL, ANTIBACTERIAL AND ANTICANCER ACTIVITIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leung D.W., Capon D.L., Gowkhel D.V.;
"The Structure and bacterial expression of three distinct bovine
interferon beta genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota: Metazoa: Chordata: Graniata: Vertebrata: Enteleestomi:
Mammalia: Eutheria: Cetartiodaetyla: Ruminantia: Pecera: Foxesdeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bos taurus (Bovine).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bovidae; Bovinde; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 F.N.B.1
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24 SYSTI KEDDAGSI KEODKI I ODI OSTSOROT EARMIDEQMIDEMKDEDDEGKEDATI VMYR. 82
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                             2 SYMILAH LOPESKU GERMAN MENGENTAN M
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                                                                                                                                84.
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                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                       186 AA;
                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Capon D.J., Goeddel D.V.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Interferon_abd; 1.
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                                                                                                                                                       49.48:
50.98;
                                                                                                                                                                                                                                                       22195 MW;
                                                                                                                             (6) Mismatches
                                                                                                                                                    Score 430.5;
Pred No. 2.
                                                                                                                                                                                                                                             N-LINKED (GLUNA"...) (POTENTIAL).
N-LINKED (GLUNAC...) (POTENTIAL).
FU060007EA415B9C CRC64:
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                                                                                                                                                                                                                                                                                                                                                                              INTERFERON BETA-1.
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142 LGKYYENIMQYLESKFYDRONWTVVQVQILINVSELMRITGYVRD 186

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INB_MOUSE
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P01575;
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Mammalia; Butheria: Rodentia: Sciurognathi; Muridae; Musinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDITINE 83265757.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ved)dani @ . Coulombel C., Doly J.:
"Structure and characterization of a murine chromosomal fragment containing the interferon beta gene.";
J. Mol. Biil. 204 221 231(1988)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic Acids Res. 17:3291-3291(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hidashi Y., Sokawa Y., Watanabe Y., Kawade Y., Ohno S., Takaoka C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID-10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Interferon beta precursor (IFN-beta).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-88196115; PubMed=3360010; Civas A., Fournet B., Coulombel C., le Roscouet D., Houvault A., Potek F., Montreuil J., Doly J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE 89263735; PubMed 2726460;
Koqa T., Fujita T., Taniquchi T.:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              interferon-beta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Purification and carbohydrate structure of natural murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDITINE 80125582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SECTENCE EFOM N P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Numbert like sequence of the mouse interferon-beta gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Structure and expression of a cloned cDNA for mouse interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Taniquehi T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-JUL-1986 (Rel. 01, Last sequence update)
15.JUN-1002 (Rel. 41, Last annotation update)
                                                                                                                                         X-RAY FRISTALLOGRAPHY (2.15 ANCSTROMS).
MEDLINE 96028219; PubMed-7473712;
Senda F., Saitoh S.-I., Mitsui Y.;
"Retined crystal structure of recombinant murine interferou-beta at
                                                                                                                                                                                                                                                                                                     X-EAY TRYSTALLONSAPHY (2 6 ANGSTROMS).
MEDILINET92371425: PubMed-T605514:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRUCTURE OF CAPBOHYDPATES
                                                                                            J. MOI. BIOI. 253:187-207(1995).
-!- PURCTION. HAS ANTIVIRAL. ANTIPACTERIAL AND ANTICANCEP ACTIVITIES
                                                                                                                                                                                                                                                                        Nakamura K.T., Mitsui Y.;
                                                                                                                                                                                                                                                                                                                                                    "Three-dimensional structure of recombinant murine interferon-beta.";
Proc. Jpn. Acad., B, Phys. Piol. Sci. 66-71-80(1990)
                                                                                                                                                                                                                                                                                                                                                                                    Shimizu H., Mizuno H., Mitsui Y.;
                                                                                                                                                                                                                                                                                      Senda I., Shimazu I., Matsuda S., Kawano G., Shimizu H.,
                                                                                                                                                                                                                                                                                                                                                                                                                   X-RAY CRYSTALLOGRAPHY (2.75 ANGSTROMS)
                              -1- SHRINIT: MONOMER.
-1- SUBCELLULAR LOYAFION: Secreted
-1- PIM: THIS BETA INTERFERON DOES NOT HAVE A DISULFIDE BOND.
-1- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                          2.15-A resolution."
                                                                                                                                                                                                                        EMBO J. 11:3193-3201(1992)
                                                                                                                                                                                                                                                         "Three-dimensional crystal structure of recombinant murine interferon-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . Chem. 258:9522 9529(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bipchom
                                                                                                                                                                                                                                                                                                                                                                                                    Matsuda S., Kurihara H., Nakamura K.T., Kawano G.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed-3221389;
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61 EMEQNIFATERQUSSSIGWNETIVENLLARWYHQINELETVLEEKLEKPOPTDOALMSSI 120

EMLQNVFLVERNNESSTGWNETIVVRLLDELBOOTVFLKTVLEEK-QEEKLTWEMSSTAL 136

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Matches
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Matches 77; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS: PR00266, INTERFERONAB.
ProDom: PD000550; Interferon_abd: 1.
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                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cytokine; Clycoprotoin; Anriviral; Signal; 3D-structure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMART.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00143; interferon;
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22 INYKOLOLOHEINIFK QESTEG MÖKIN - LIYKASEREPREM - SERIGVEYTÄIVÄET 77
                                                                  T MSANTPOLEGES MEGGORITMÓ PROBEDACIA BEHARLO DESTROCOS SOCIEDAVIDA (§ 9)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11FA; 31-JAN-94.
2HIF: 31-AUG-94.
1RMI; 14-FEB-95.
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X14029; CAA32190.1; -..
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01-NOV-1997 (kel. 35, Created)
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                              YOROYAMA S., Ohishi N., Shamoto M., Watanabe Y., Yaqi K.; "Isolation and expression of rat interteron beta dene and drowth: inhibitory effect of its expression on rat qlioma cells.".
Blochem, Blophys. Res. Commun. 232:648-701(1997).
-i- FUNCTION: HAS ANI VIKAL, ANTIBACTERIAL AND ANTIFANISE ACTIVITIES.
-i- SUBBUNIT: MONOMER (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                         P70499;
                                                                                                                                                                                                                          Eukaryota, Metazoa; Chordata; Craniata; Vertebrata, Er eleostomi;
Mammalia; Eutheria; Rodentia; Sciuroquathi; Muridae; Murimae; Raltus.
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-1- SUBCELLULAR LOCATION: SECTETED.
-1- PTM: THIS BETA INTERFERON DOES NOT HAVE A DISULPTDE BOND
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                                                                                                                                                                           SEQUENCE FROM N.A.
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Best Joeal :
This SWISS PROFERITY is copyright. It is produced through a collaboration between the SWISS institute of Mionatomatics and the EMBL outstation the European Mionatormatics institute. There are no restrictions on its use by loss profit institutions as indeed as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE of 167 195 FROM N.A. MEDILINE H705 (170) FORMED OLIVES OF ALTONIAN R.J. Adolf G.R., Swelly D.: "Molecular clouded and expression in Escherichia celicated equine type [interference.")
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18 AUG 1982 (Rel. 05, Created)
18 Act 1987 (Rel. 05, Last sequ
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15 JHN 2007 (Rel. 41, Last annotation update)
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HSSP; P01563; 2HIE EMBL: A15991; CAAO1 PIR; E24912; IVHO21

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                                                                                                                          the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for commer
                                                                                                                                                                                                                                                                                                                                                                                  Himmler A., Hauptmann R., Adolf G.R., Swerly P.:
"Molecular cloning and expression in Escherichia coil of equine type
linterferons.";
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13-AUG-1987 (Rel. 05, Greated)
13-AUG-1987 (Rel. 05, Last sequence update)
15-JUN-2002 (Rel. 4); Last annotation update)
Interferon omega: L procursor (Interferon alpha:III).
EMBL; M14544; AAA30955.1;
EMBL; A15991; CAA01259.1;
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                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDITINE-87053170; PubMed 3022999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria; Perissodaetyla; Equidae; Equus
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                                                                                                                                                                                                                                                                                                          -1- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELIA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SM00076;
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30-MAY-2506 (kel. 35, Last sequence update)
30-MAY-2509 (Rel. 35, Last annotation update)
30-may-2090 (Rel. 35, Last annotation update)
Interferon tau procursor (IFN-tau) (Trophobiast protein ) (TP-1)
(Trophoblastin) (Antiluteolysin) (Trophobiast antiluteolytic protein).
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PROSITE, PS00252; INTEFF
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                                                                                                                                                                                                                                                                             Biochimie 80:755-777(1998)
                                                                                                                                                                                                                                                                                                                                                                                             "IFN-tau: a novel subtype I IFN1. Structural characteristics, non-ubiquitous expression, structure function relationships, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             elaphus.
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Demmers E.P., Kulac S., 1997 (5) F.W.
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Guillomot M.W., Charlier M.A., Charpigny S.Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Production of interferon by the conceptus in red deer Cervus
                                                                                                                                                                                                                                                                                                                                      potentialities."
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RECOGNITION OF PERCHANTY, INTERACTS WITH ENCOMETRIAL PROPPTORS, DROBARRY TYPE I INTERPERON RECEPTORS, AND BLOCKS ESTROGEN RECEPTOR EXPELOSION, FEVENDALIS LIFE ENCOMETRION, THE RESULTS IN THE RECEPTOR EXPRESSION IN THE ENCOMETRION, THES RESULTS IN THE SUPPRESSION OF THE PULSATILE PURDOMETRIAL PRIPAGE OF THE LUTEOLYTIC GORDUS LUTEON (IUTEOLYSIS) AND THEREFORE A RETURN TO OVABTAN ORYCLICITY, THIS, AND A POSSIBLE DIRECT EFFECT OF TEN-TAU ON PROSTAGLANDIN SYNTHESIS, LEADS IN TUPN TO CONTINUED OVABTAN
                                                                                                                                                                                                                                                                             FUNCTION: PARACRINE HORMONE PELMARLY RESPONSIBLE FOR MATERNAL
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ntive 26, Mismatches
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                 Pfam: PF00143; interteron; PRINTS; PR00266; INTERPREE
                                                                                                                     SEQUENCE
                                                                                                                                                                                CHAIN
                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                   Pregnancy;
                                                                                                                                                                                                                                        SMART; SM00076; IFabd; 1.
FE0SITE, FS00252; INTERFDRON_A_B_D; 1.
                                                                                                                                                                                                                                                                                  ProPom: PD000550; Interferon_abd; 1.
                                                                                                                                                                                                                                                                                                                                                          HSSP; P01563; 2HIE.
                                                                                                                                                                                                                                                                                                                                                                            <u> РМВІ; АТОООБЗВ; СААО4193.1;</u>
                                                                                                                                                                                                                                                                                                                                           InterPro;
                                         Local Similarity
Nes 58, Conserva
19 KILWOLNORI -- EYCHRIMMSETTESTIKOLOOPIKSIAALTIYEMIONIFAIKKODSSS 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSE SPECIFICITY: CONSTITUTIVELY AND EXCLUSIVELY EXPRESSID IN THE MONDMICLEAR CELLS OF THE EXTRA-EMBRYONIO TROPHET TODERM. DEVELOPMENTAL STAGE: MAJOK SECKETORT FRODET SYNTHISTED BY THE CARCETTE SEXING A VERY SHOET FERICE IN EARLY FRESHANLY.

MISCELLANDORS: IFN TAR GENES ARE INTRONLESS. THEY EVELYED FROM LENGANGER AND HAVE CONTINUED TO DUPLICATE INDEPENDENTLY IN DIFFERENCY INFARES OF THE RUMINAMITA. THEY EMCORE FOR PROTEINS VERY SHALLAR IN SEQUENCE BUT WITH THE DIFFERENCY BUTCHESSION.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROCESTERONE SECRETION, WICH STIMULATES THE SECRETION BY THE ENDOMERBIUM OF THE NOTREINTS PROTUPED FOR THE GROWTH OF THE CONCILETY SIGNARY, DISPLAYS PARTICULARLY HIGH ANTIFFAL AND ANTIFRALIFERATIVE POPULCY CONCURRENCY WITH PARTICULAR WEAK CYTOTOXICITY, HIGH ANTIFFATYTIC ACTIVITY AND IMMUNOMOBILATORY PROSPECTIVES IN CONTRAST WITH OFFER IFNS, HIW TAU IS NOT VERALLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FAMILY. IFN ALPHAIL SUBFAMILY
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                                                                                                                                                                                                                                                                                                                                           IPR000471; Interferon_abd
                                                                                                                                                                                                                     Cytokine; Normone;
                                                                                                                     195 AA;
                                         Conservative
                                                                                                                                        2222
                                                                                                                                                                                                                                                                                                     INTERFERONAB
                                                                                                                                        \frac{122}{162}
                                                                                                                                                                                23
195
                                                                                                                       22075 MW;
                                                            30.2%;
38 9*;
                                                            Prod No
                                                                                                                                                                                                ; Antiviral; Signal.
BY SIMILARITY.
                                                                               Score 253.5;
                                                                                                                       BY SIMILARITY.
; P5304ACBlACFOCC7 CPC64;
                                                                                                                                                               BY SIMILARITY.
                                                                                                                                                                                INTERFERON TAU.
                                         Mismatohos
                                                              2 40-15.
                                                                               DB 1;
                                            56; Indole
                                                                                 Length 195;
                                            caps
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HORSE
                           gukaryota; Mctazca; Chordata; Craciata; Vert
mammalia; Futheria: Perissodactyla; Equidae;
                                                                                                                                                                             P05003;
13-AUG-1987 (Rel. 05, Created)
NCBI_TaxID=9796;
                                                                          Equus caballus (Horse)
                                                                                                                           13 AGG-1987 (Fel. 05, Last sequence update)
15 ETM 2002 (Fel. 41, Last annet riter update)
                                                                                                        Interferon alpha-1 precursor.
                                                                                                                                                                                                                                       INA1_HORSE
                                                                                                                                                                                                                                       STANDARD
                                                    Chordata: Craniata: Vertebrata; Enteleostomi;
                                                                                                                                                                                                                                          184 AA
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98 AAWDTTLIEQIRTGIHQQIDDIDACIGQVMGKEDSDIRKMGETLIVKKYEQGIHVYIQEK 157

39 KILUUMT BESPRECHOUWERDERENDERWERDE 1200ALSVEHEM GODENE HETERSS 97

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                                              SEQUENCE FROM N.A.

MEDLINE #705 (170) PubMed 8022999;

Hummler A., Haupimann k., Adolf d.K., Swetly F.:
DNA 5:345 356(1986).
              "Molecular cloming and expression in Escherichia soli of equine type \Gamma interterons.":
                                                                                                                                                                                       18 AUG 1987 (Rel. 05, Freated)
18 AUG 1987 (Rel. 05, Last sequence update)
15 HD 2002 (Rel. 41, Last annotation update)
[interferentalpha ( precursor)
                                                                                                                        NCBL LAXID 9796;
                                                                                                                                 Mammalia: Entheria: Perissodactyla: Equidae: Equis
                                                                                                                                                 Bukaryota: Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                       Espires calallus (Horse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWES, is a cutty to copyright, it is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Boundariantes Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Using by and for commercial
                                                                                                                                                                                                                                                                                INA HERSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or send an email to license isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                             145 YEGRIALYIGEKKYSECAMETYRAFIMRSE 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'ytokine: Antiviral; Multigene family: Signal.
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FINCTION: PROBUCED BY MACROPHAGES, IEN-ALPHA HAVE ANTIVITRAL ACTIVITIES. INTERFERON STIMULATES THE PROBUCTION OF TWO ENZYMES A FROSTRIK KINASE AND AN OLIGOMIENTIALS SYNTHETASE.
STREETLIJK KINASE AND AN OLIGOMIENTALS SYNTHETASE.
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                                                                                                                                                                                                                                                              SECUENCE FROM N.A.
MEDILINE 87053170: PubMed-3022555;
Himmier A., Hauptmann R., Adolf G.R., Swetty P.;
"Molecular cloning and expression in Escherichia coli of equine type
-!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: BELONGS TO THE INTERPERON ALPHA, HETA AND DELIA
                                                                                                                                                                                          - i -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Equus caballus (Horse).
Eukaryota: Motazoa: Chordata: Chuniata: Vertebrata: Euteleostomn:
Mammalia: Eutheria: Perissodaetyla: Equidae: Equus.
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13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
15-JUN-2002 (Rel. 41) Last amodation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Interferon alpha-4 precursor.
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EMBL: A16555; CAA01292.1; -.
FIR; C24912; TUNDA4.
HSSP: P01563; 2HIE.
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1- SUBJECTEDIAR LOCALION: SOCIETION.
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                                                                                                             5:345-356(1986).
EUNCTION: PRODUCED BY MACKOPHAGES, TEN-ALPHA HAVE ANTIVIKAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES
                                                                                 A PROTEIN KINASE AND AN OLICHADENYLAIT SYNTHETASE
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                      This SWISS-PROI entry is copyright. It is produced themsh a collaboration between the SWISS Institute of Bioinformatics and the EMBL outstation the European Bioinformatics institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mammalia: Eutheria; Perissodactyla: Equidae; Equus
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                                                                                                                                                                                                                   -1- FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES: A PROTEIN KIMASE AND AN OLLGOADENVIATE SYNTHETASE.
-1- SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                           I interferons.";
DNA 5:345-356(1986)
                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE:87053170; PubMed:3022999; Himmler A., Hauptmann R., Adolf G.R., Swetly P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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13-AHG-1987 (Rol. 05, Last Sequence update)
15-JUN-2002 (Rol. 41, Last annotation update)
Interferon alpha-2 precursor.
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Tytokino- Antiviral- Multigone family; Signal.
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HSSP: P01563; 2HIE.
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Pfam, PF00143; interferon; 1.
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                                                                                                                                                                                                                                                                                                               85 OTFHIRSTORSSAAWIRSHARIY FOLYOOTTELFAST SOFVOVEETFILMNEDSHLAVRR 145
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Perfect score:
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872
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIE

Result No.	Score	Match	Length	ВС	ID	pescription
- :	859	98.5	187	- ;	190HA1	Ď
. .	4αL.5		186	Η.	IVHOH2	interferon bota
اتدا	476.5	54.6	186		INHORI	interferon beta
£- ·	44 30 UT	Ė	186	_	IVBOB3	interferon beta
UI A	4 6 . 5	. ک	186	_	IVBOB1	interferon beta
ъ.	٠. اور		182	-	IVMSB	interferon beta
7	у. У	œ ·	184	C4	JC5424	interferon beta
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Œ (270	_ :	195	_	IVHO21	interferon alpha
10	262	0.00	184	-	IVH∩A4	
11	262	30.0	184	_	IVHOA3	interferon alpha
12	262	30.0	184	,	I VHOA1	interferon alpha
13	258	29 6	.1.8.4	_	IAHOW?	interferon aipha
14	257	29.5	195		TINHAÏ	
15	255 . n	29.3	195	۰	IIOHVI	interferon alpha
16	<u>.</u> 55	29.0	195	ĸ.	146348	interferon alpha
17	253	29.0	195	~	S70011	interferon type
1 %	253		195	N	146974	interferon-omega4
19	252.5	29.0	165	Ŋĵ	178570	alpha 2 interferon
20	252.5		189		910HA1	interteron alpha-
h.,	to Unito		189	r.;	127584	IFN-alpha-N.prote
22	251.5 51.5		188	j	1 VHUA2	interferon alpha-2
2.4	251		172	t:	A61578	trophoblast proter
24	251	28.8	195	ы	146975	interferon-omega20
25	251		195	ı.	146972	0
26	249.5		195	N	A61455	
27			195	N	JS0204	trophoblast inter
t.,	124.17 14.17 15.17	28.4	189	,	ZAUHVI	interferou aipha
		296.1	195	N	A53746	interferon, tropho

A:Moiecule type: mRNA A:Moiecule type: mRNA A:Rosidues: 1 187 < HGUS A:Rosidues: 1 187 < HGUS A:Cross reterences: CB:JUUJIB; GB:RÜÜĞE16; GB:M11029, NID.4184626: PID:q384802 A:Houghton, M.; Stewart, A.G.; Doel, S.M.; Emitade, J.S.; Falon, M.A.W.; Smith, J.C.; R:Houghton, M.; Stewart, A.G.; Doel, S.M.; Emitade, J.S.; Falon, M.A.W.; Smith, J.C.; Rucleic Acids Res. B, 1913-1931, 1980 Nucleic Acids Res. B, 1913-1931, 1980 A:Pitle: The amino-terminal sequence of human fibroblast interteron as deduced from A:Pitle: The amino-terminal sequence of human fibroblast.

A; Accession: A93700 A; Molecule Lype: mENA A; Residues: 1:68 (HCC)

Challed against the contract of	1462/2	2,000	27.4	238.5
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I stored agreement	A40068	195 2	27.6	240.5
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A;Accession: A93887 A;Accession: A93887 A;Accession: A93887 A;Recidues: I 187 «OHN» A;Recidues: I 167 «OHN» A;Raniquehi, T.; Ohno, S.; Eujii-Kuriyama, Y.; Muramatsu, M. Gene 10, I1-15, 1980 A;Title: The nucleotide sequence of human fibroblast interferon cDNA. A;Ericicuese number: A91468; MUID:81005095; PMID:6157601	A; Access A; Access A; Molecu A; Residu R; Taniqu Gene 10, A; Title A; Befere
A;Reference number: A93721; MOID:81198952; FMID:0194964 A;Recession: A93721 A;Accession: A93721 A;Accession: A93721 A;Molecule type: DNA A;Residues: 1-187 <law> A;Residues: 1-187 <law> A;Residues: GB:V00535; NID:932639; FIDN:QAA28796.1; PID:432640 A;Cross-references: GB:V00535; NID:932639; FIDN:QAA28796.1; PID:432640 R;Othoo, S.; Taniqueth; T. A;Accession: Accession: Accession: GB:V00550mal gene for human interferon beta. A:Reference number: A93887</law></law>	A; Referer A; Accessi A; Molecul A; Residue A; Cross-1 R; Ohno, S Proc. Nat A; Title
IVHUB1 IVHUB1 Interferon beta-1 precursor [validated] - human [Species: Homo sapiens (man) C;Species: Homo sapiens (man) C;Species: Homo sapiens C;Accession: A93721, A93887; A94468; A93225; A93706; A93706, A93269; S04479; I56315; C;Accession: A93721, A93887; A94468; A93225; A93706; C.M.; Coss, M.; Najarian, P.; Goedde R;Lawn, R.M.; Adelman, J.; Franke, A.E.; Howek, C.M.; Cross, M.; Najarian, P.; Goedde Nucleic Acids Res. 9, 1045-1052, 1981 Nucleic Acids Res. 9, 1045-1052, 1981	RESULT 1 IVHUB1 Interferc C; Species C; Date: 1 C; Date: 1 C; Accessi R; Lawn, P Nucleic P A; Title:

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A:Molecule type: DNA
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(280pertamity: interferon alpha
                                                                                                                                                    A:Reference number: A90097
A:Accession: A01840
A:Moiecule type: DNA
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*Ricemet, D.W.: Capon, D.T.: Gooddel, D.V.
*Ric/Technology 2, 458-464, 1984
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-7:Species: Bos primiterias taurus (cattle)
-7:Saecies: 15 Nov [1984] #sequence revision 15 Nov [1984] #text_change 07-Feb-1997
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C:Keywords: alycoprotein
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R:May, L.I.: Schqal, P.B.
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Asketeronce number: 804479; MUID:89276340; PMID:2731537
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Reshepard, H.M.; Leung, b.; Stebbing, N.; Goeddel, D.V.
Nature 294, 563-565, 1981
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Archossidness (1864-188). NID:q184624; PIDN:AAA36040.1; PID:q184625
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A:Accession: A93269
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Pred, No. 7.20-64;
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interferon beta 3 previrsor howine CySpecies: Bos primiagnius taurus (cattle) CySpecies: 15-Nov-1984 #sequence_revision 15-Nov-1984 #text_change 07 Feb 1997
                                                                                      C;Acression: A01841
K.Leung, D.W.; Capen, D.J.; Goeddel, D.V.
Hio/Technology 2, 458-464, 1984
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F:22-186/Product: interteron beta-1 #status predicted .MAI.
F:101,136/Binding site: carbobydrate (Asn) (covalent) #status predicted
A; Reference number: A90097
A; Accession: A01841
                                                       A:Title: The structure and bacterial expression of three distinct bovine interferon b
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A:Cross-references: GB:M14546; NID:q164228; PIDN:AAA30954.1; PID:q164229
C:Supertamily: interferon alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A:Title. Molecular cloning and expression in Escherichia cell et equine type I intert
A:Reterence number: A90956; MUID:87054170: PMID:8022999
A:Arcession: G28912
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    interferon beta-1 precursor—horse
N;Altornate names: EqIPN beta-1; 'ype I interferon
C;Species: Equus caballus (domestic horse)
C;Date: 28 Dec 1987 #sequence_revision 28 Dec 1987 #text_change 22 Jun 1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   y Match 54.6%; Score 476.5; DB-1; Length 187;
Local Similarity 58.4%; Pred. No. 2.be-%2;
Ees 97, Conservative 27, Mismatches 41; Indels 1; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6) EMGRITATEGGSSSTSWREDTVERGLAMVERGTBEGGAVALLEGGERBERGALMSSL 120
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94; Conservative
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A; Molecule type: DNA A; Residues: 1-186 < LEU>

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interteron beta precursor - mouse
Caspectes: Mus musculus (house mouse)
Caspectes: Aug-1984 #sequence_revision 03-Aug-1984 #fext_chapge 22-Jun-1999
Cabression: S02020: s04201: Apigag
R-Vodjdani d - conjombel C ; Doly 1
J. Mol. Biol. 204, 221-231, 1988
A:Reference number: S02020; MUID:89125582; PMID:3221389
A:Accession: S02020
A:Molecule type: DNA
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Bio/Technology 2, 458-464 1984
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C:Keywords: alycoprotein
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interferon beta precursor - rat
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F;22 184/Product. Interferon beta #status predicted <MAT+
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Structure and expression of a cloned cDNA for mouse interferon-beta. A:Reference number. A01839. MUID.83265757: PMID:6688252 A,Ascession. A01839
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F.b.Grebi, Y., &chaka, Y., Watanabe, T., Eawado, Y., Chao, S., Takacka, C.: Taniqueh
J. Piol. Chem. 258, 9522-0529, 1983
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Bioehem. Biophys. Res. Commun. 222, 698-701, 1997
A.Title: Esolation and expression of rat interrieron beta gene and growth-inhibitory
A.Eclerence number, 305121, MUIE.97271387, PRID.9126438
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                                                                                                                          A; Title: Nucleotide sequence of the mouse interferon-beta gene A.kedetenee nuclei, 3:4401, NUTD.8925775, PHD:2726460
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R;Kuga, T.; Fujita, T.; Taniquchi, T.
Mucleje Asids Res. 17, 3291, 1989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               h 38.2%; Score 333.5; DB 2; Length 184; Similarity 45.8%; Fred. No. 1.6e 20;
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C:Keywords: Intivital: algosphotein
E:L24/Domain: Separates assume predicted (815)
E:24/D5/Domain: Intoritation (Pha.11): #status predicted (MAT)
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DNA 5, 845 856, 1986
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As Mosidnes: 1 195 - HIM -
As Cross references: GREM14545; NID:q164217; PICH.AAA30949.1, PID:q164220
C) Supertamily: interteron alpha
C) Keywords: antivitall; slycoprofein
                                                                                                                                                                               F:101/Binding site: curbohydrate (Asm) (socilest) #status predicted
                                                                                                                                                                                                                              F:24 122.52-162/Nisulfide bands. #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                         A:Closs reterences: GB:M14544; NID:q164270; PIDN:AAA:0955.1; PID:q164231
C:Superfamily: interferon alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N;Alternate names: EqIFN alpha:II-1; EqIFN-omega-1; type I interferon C;Species: Equus caballus (domestic horse)
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E:24.195/Product: interferon iPph; II-2 #status predicted 2MACE:24.122.52 Predicted 2MACE:24.122.52 Predicted 2MACE:24.122.52 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted 2MACE:25.24.122.53 Predicted
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A: Beteronce number: A90956; MUID:87953170; PMID:3022999
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             tookal Similarity 41.0
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                                                       31.0%; Score 270; DB 1; Length 195;
41.0%; Prod No 45.15;
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Pred. No. 5.5e-17;
Pred. No. 56;
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A,Cross references. GB.M14542, NEC.g154222, PIDH.AAA30951.1, PH.q164224 C,Superfamily, interferon alpha C.Reywords: antiviral F;1-23/Domain: sizeater
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-184/Product: interteron alpha-1-3 #status predicted <MAI-
F;24-122,52-162/Disuifide bonds. #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              interferon alpha-I-3 precursor - horse
N:Alternate names: EqifN-alpha-I-3; type | interteron
C:Species: Equus caballus (domestic borse)
C:Date: 28 Dec 1987 #sequence_revision 28:Dec-1987 #text_change 18 Jun 1999
                                                                                                                                                                                                                                                                                A.Reference number: A90956; MUID:87053170; FMID:8022999 A:Accession: C24912
                                                                                                                                                                                                                                                                                                                                                                                        R:Himmler, A.; Hauptmann, R.; Adolf, G.R.; Swetly, P DNA 5, 345-356, 1986
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E:24-184/Product: interferon alpha-1-4 #status predicted <MAT 
E:24 122,52-162/Disulfide bonds #crator or 4-1-7
                                                                                                                                                                                                                                                                                                                                                A; Title: Molecular cloning and expression in Escherichia coli of equine type I interf
                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Accession: C24912
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N;Alternate names: EqIFN-alpha-1-4; type 1 interferon
C.Species. Equus caballus (domestic horse)
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A; Fittle: Molecular closing and expression in Eacherichia coll of equine A; Reterence number: A<sup>GORGE</sup> - MULTY-R<sup>TOCO</sup>170; PMID:2022999 A; Molecule type: DNA A; Periduer: 1-184 - HIMS A; Periduer: 1-184 - HIMS A; Periduer: 1-184 - HIMS A; Periduer: 1-184 - HIMS A; Cross-reterences: GR-M14541 - NID:q164218; PIDN-AAA30950 ]; PID:q164221 C:Superiamily: interferon alpha C:Korywords, antivital C:Korywords, antivital
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WARITORIATE DISTRICT INTERFECTION
Composition Physics (demonstrate borse)
Composition 1987 ### Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Production of the Prod
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A;Residues: 1 191 HIMS
A;Cross references on M94540 HID g17405, Flow AAA23952.1. FID:J261227
C:Superfamily: interferon alpha
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A:Reference symbor: A40956, MUID 87053170, PNID 3022999
A:Acrossion: A24912
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N:Alternate names: EqIFN-alpha-I-1; type I interferen
C:Species: Equus caballus (domestic horse)
C:Cate - 28 Dec 1987 #selvance_relision 28:Dec 1987 #text_change 18:Jun-1999
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Prod. matches 52;
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A:Molecule type, protein
A:Mosidoes: 22-23,7x7,25-33 - APC25
A:Bosidoes: 22-23,7x7,25-33 - APC25
P:Adolf C.P.; Magreti-Popy, I.; Malsmor, I.; Capitoll, K.
J. Biol. Chem. 265, 9290-9295, 1990
A:Title: Purification and characterization of natural buman interferon omegal. Two
A:Reference cumber: A35299; MOID:90264422; PMID:169-7148
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A:Title: Human Interferon omega 1: Isolation of the dene, expression in Chinese humst A:Title: Human: Steries on the MID:91274345; PMID:912709
A:Experimental soarce; leokocytes
A:Experimental soarce; leokocytes
A:Experimental soarce; leokocytes
A:Exte. evidence for two amino terminals, alyeosylation
P:Sbircho, B: Koco, K: Koga, I: 194yashi, S.; Matsuo, A.; Hiratani, H.
P:Sbircho, K: Koga, I: 194yashi, S.; Matsuo, A.; Hiratani, H.
Riochem Piophys Pes Commun. 168, 16-21, 1990
A:Title. Existence and anique N terminal scapene of alpha I: (omega) intention
A:Reference number: A34618; MUID:90226353; PMID:2158314
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C,Date. 28.Dec:3887 #sequence revision 17:May:1996 #text_change 08:Dec:2000
C,Acression A4020, A44020, E14020, E14174, S40305 A35200 A44618 A03674.
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A; Mosidnes: 22 133, 'P'
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A; Fesidues, 22 195 TH
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N;Alternate names: IFN-omega-1, interferon alpha II 1 (IFN-alpha-II 1); type I inter
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A:Residues: 22-33 <Abox
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A;Malecule type: pro
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A;Experimental source: clone F9A2; Namalwa helis (human Burkittin lymphe
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A:Residues: 1-110,'E',112-195 <CAP>
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.l. 5, 768-779, 1985
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A: Acrossion: A:4618

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interferon alpha II | precursor - bovine
M.Alternate names: BoIFN-alpha II-1; BoIFN-omega-1
C.Species: Bos prinderius faurus (cartle)
C.Date: 28 Dec 1982 #sequence.revision 28 Dec 1987 #fext_change 22-Jun-1999
C.Achession: B24285
ReCageur D.L.: Shepard, H.M.: Gorddel, D.V.
Mol. Cell, Bicl. 5, 768 779, 1985
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(C)Keywords: antiviral; cytokine; alycoprotein
(C)Keywords: antiviral; cytokine; alycoprotein
(E) 21/Verodict: signal sequence #status predicted &SIG-
(E) 22 195/Product: interteron cmega-1 #status experimental <MATI>
(E) 24 195/Product: interteron cmega-1 #status experimental <MATI>
(E) 24 122/S2 162/Disulfide bonds: #status predicted
(E) 101/Minding site: cartashydrate (Asu) (covalent) #status predicted
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A:Experimental source: panereas
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ArModidnes: 22 33 - SHI -
                                                                                                                                                                                                                                                                                                                                                                                               Sucry Match 29.88; Score 255.5; DB 1; Host Local Similarity 88.88; Prod. No. 4.6e-14; Matches 57; Conservative 30; Mismatches 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Comment: Viral intection induces coordinate expression of both alpha-I and alpha-II (c
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tive 42; Mismatches 50; Indels
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TITLE OF INVENTION; DNA AND PROPRIED PLANTED;

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PRIOR APPLICATION NUMBER: US-60
PRIOR FILING DATE: 1998-10-40
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APPLICANT: Cher, Jian
APPLICANT: Wood, WILLIAM: I.
APPLICANT: Zhard, WILLIAM: I.
APPLICANT: Zhard, bond Xido
IIILE & INVENTION: N WELTYPE I INTERFERONS
FILE BEFERENCE: P1224-281
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Local Similarity 98.8%; Pred. No. 2.9e-85;
hes 164; Conservative 0; Mismatches 2; Indels
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ETEING DATE: US MAR 1995
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Matches 164; Conservative
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INFORMATION FOR SEQ 1D NO.
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APPLICATION NUMBER: US 07/911,533
FILING DATE: 10-JUL-1992
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AFLICANI. Heartlein, Michael W.
APPLICANI: Hauge, Brian M.
APPLICANT: Selden, Richard F.
APPLICANT: Selden, Richard F.
                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
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ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
FILING DATE: 05-NOV-
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121 BLERYYGRILHYLKAKEYSHCAWTIVRVEILRHEYKINGUTCYLKN 166
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                                          82 EMLQNIFATERODSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDFTRGKLMSSL 141
                                                              61 FMLQNIFATF9Q58851GWNETTVENLLAVVYBQTRBLKTVLLEKLEKERDFT96ALM888. 120
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FILING DATE: 03-DEC-1992
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SOFTWARE: Patentin Release #1.0.
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COMPUTER: IBM PC compatible
                                                                                                                            22 MSTNLLGENGESSNEGTORILWOLD FRIED LKREMNED FELLINGLOGEOMEDAALITY B1
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05-NOV-1992
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US-09-202-122-9
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US-09-206-935-7
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Patent No. 6299877
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IITLE FOR INVENTION: BUMANN INTERFERON-HTSILON, A TYPE I INTERFERON

FILE REPERRINTS: P122182 (111cd)

CURRENT APPLICATION NUMBERS (187,002,102)

CURRENT FILING DATE: 1998-104-04

PRIOR FILING DATE: 1998-112-03

NUMBER OF SEQ ID NOS: 12
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APPLICANT: Zhang, Doca-Xiao
FILLE OF INVENTION: NOVEL TYPE I INTERPERONS
FILE PEFERENCE: 11669.504805
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FERENCE APPLICATION NUMBER 60,7084,048
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APPLICANT: Wood, William I.
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NUMBER OF SEC ID NOS: 24
SOFTWARE: Patentin Ver. 2.0
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                                                                                                                                                                                                                                                                                        y Match 98.5%: Score 85%; DB 4; Length 187; Local Similarity 98.9%; Prod. No. 2.3e-85; hrs. 154; Conservative 0; Mismatches 2, Indels 0;
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Local Similarity 98.8%; Prod. No. 2.9e-85;
hes 164; Conservative 0; Mismatches 2; Indels
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; ORGANISM: Homo sapiens
US-09-206-936-7
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; ORGANISM: Homo sapiens
CC 35 187 752 4
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: SEQ ID NO 7
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AFFLICANT: Chen, Jian
APPLICANT: Wood, William I.
FILE SETERENCE: P1224k1
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: SEO ID No.4
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, Fatent No. 6300475
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Patent No. 6433145
                                                                                                                               Query Match 98.5
Best Local Simularity 98.8
Matches 164: Conservative
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EARLIER ACTLICATION NUMBER: 03 6
EARLIER FILING DATE: 1998-12-08
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EARLIER FILING DATE: 1998-07-21
EARLIER FILING DATE: 6909-07-21
NUMBER OF SEQ ID NOS: 54
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TITLE of INVESTIGAL Keratin cyte belived interferon
FILE SETHENDES PRIEZEI
CTEBERT APPLICATION BUREIS, TICONOTATION
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    Score 859: DB 4: Length 187
    Fro 1, 4., 2.% 35:
    G: Mismatches 2: Indels

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CENERAL INFORMATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 164; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT MERENNA, SOAN
TITLE OF INVENTION: TEMPERAZ/IFN CAMPLEX
FILE REFERENCE: PEMPERIA, SED
CHREEN APPLICATION NUMBER, US/05/215/21
FROOK APPLICATION NUMBER: 60/2068, 295
FROOK FILLNO DATE: 1597-12-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09 215 212 14
                                                                                                                                                                                                                                                                                                                                          NUMBER OF SECTIONOS: 15
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                                                                                                                                                                                                                                                                                                       SHERWARES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERTILANT:
OTHER INFORMATION: Description of Artificial Sequence: Human sIFNAR2 linked by OTHER INFORMATION: Linker to luman IFNBera
                                                                                            FEATURE
                                                                                                                               ORGANISM: Artificial Sequence
                                                                                                                                                                                171 E. FKI
                                                                                                                                                                                                                       LENGTH: 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 BERRYSOMECHELLELLELLELLELLELLELLEN YRINKUTOYCKN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14.2 BUKRYYOR ILHYUKAKEYSHTAWTI VRVEILKNEYFINKUIGYUKN 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     y Match 98.5%; Score 859; DB 6; Length 187; Local Similarity 98.8%; Pred. No. 2.9e-85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPILICATION NUMBER: 1857
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FILING DATE: 18-JUN 1982
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 201, 459
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                                                                                                                                                                                                                                                                                                  Patentin Ver. 2.0
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EL IAYAR, Nabil
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; OTHER INFORMATION: Residues 1 29, signal sequence; 40-249, human IFNARJ: 240-249, cultin information: 2X Glydror linker; 250-415, human IFNbeta 0S-09-215-212-14
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                                                                                                                                                                                                                   US-08-477-310A-1
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                                                                                                                                                Best Local Similarity
                                                                                                                                                                       Query Match
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                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (510) 655-3542
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.40
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Bacterial PRITITE OF INVENTION: Polypeptides NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                   MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION: NAME: Chung, Ling-Fong
                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPACTIBLE
OPERATING SYSTEM: PC-100S/MS-DOS
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                                                                                                                                                                                                                                                                                                    : HOAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Emeryville
61 EMEQNIFATERQDOCCOTOWNET I VENT I AND VIOLET OF FEBRUERED FIELD ALMSSL. 120
                                                                                                                                                                                                                                                                             STRANDEDNESS:
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                                          1 MSYNLLIGHTQESSNEQSQKILLWGLNGELHYCLKIPKMNHTGIFERIKGIGGEGKEDAALTIY 7-G
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                                                                                                                                                                                                                                                                                                 amino acid
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                                                                                                                                                                                                                                                                                                                 166 amino acids
                                                                                                                               Conservative
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                                                                                                                        Score 857; DB 2; Length 166; Pred. No. 4.1e-85; Indols 1; Mismatches 2; Indols
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Patent No. 5127332

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; Sequence 1, Application US/08912768
                    US-08-912-768-1
                                        RESULT 13
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// Patent No. 5545723
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                                                                                                                                                                                                                                                                                                                      Unery Match

GT 98. Rest Local Similarity 98.28; Pred. No. 8.6e-85;

Matches 168. Conservative 1; Mismatches 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Goelz, Susan E
APPLICANT: Cate, Richard I
APPLICANT: Pepinsky, Hlake R
APPLICANT: Chow, Pingchang E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: 8179
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
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NAME: Haley Jr., James F
REGISTRATION NUMBER: 27,
                                                                                                                                                                                                                                                                                                                                                                                                         ANTI-SENSE: NO
-213-448-1
                                                                                                                                                                                                                                                                                                                                                                                                                                             HYPOTHETICAL:
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                                                                                         121 HEKRYVSRTSHYLEAKEYSHOAWTIVBVFILENEYFIRELTGYLEN 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: 18M PC compatible
OPERATING SYSTEM: PC-509/MS-1909
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STPPET: Fish s
CITY: New York
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
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                                                                                                                                                                      61 EMLQNIFAIFRQDSSSTGWNETIVENLLANVYHQINHLKTFLEEKLEKEDFTRGKLMSSL 120
                                                                                                                                                                                                          61 EMPONIFALFRODSSSTOWNETIVENILLANWYHQINHLKTVLEEKLEKEDFTRGALMSSL 120
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: Sequence 1, Application PC/TUS9503206 . GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                      RESULT 14
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Best Local Similarity 98.2%;
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APPLICANT: Biogen, Inc.
APPLICANT: Goelz, Susan E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
ACCUSTAGE OF TRAFFE OF M. 912,768
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APPLICANT. Chow, Pingchand E
TITLE OF INVENTION: No. 6127332el Muteins of IFN-Meta
NUMBER OF SEQUENCES: 5
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APPLICATION NUMBER: 08/475,774
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         991 HFTAR CTANISAANFITAAANTINVORSKANVATAHOOMAYN 13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: 1BM PC compatible OPERATING SYSTEM: PC DOS/MS-DOS SOFTWARE: Patentin Dos'ms
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ** EMERITATES DESCRIPTION DE LA CARRELLA DE LA CARRELLA DE LA CARRELLA DE LA CARRELLA DEL CONTROLLA 
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REGISTRATION NUMBER
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Pred. No. 8.6e-85;
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APPLICANT: Popinsky, Blake R
APPLICANT: Chow, Pingchang E
TITLE OF INVENTION: Novel Muteins Of IFN-Beta

APPLICANT:

Cate, Richard L

NUMBER OF SEQUENCES

CORRESPONDENCE ADDRESS:

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For HS95 04206 1

HYPOTHER TYPE: NO HOLDS TREE TYPE: N
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Patent No. 6127342
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Best Local Similarity 98.2%;
                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
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TELEFAX: (212) 596 9090
TNEORMATION FOR SEQ III NO: 1:
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APPLICANT: Chock Fishand E
APPLICANT: Chock Fingthand E
APPLICANT: Chock Fingthand E
                                                                                                                                                                                                 LITTLE OF INVENTION: No. 6127332el Mateins of IFN-Beta NUMBER OF SEQUENCES: \S
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OMBUTEK: IRM FO COMPATIBLE

OFFRATING SYSTEM: FO THE SZMS TOS

SOFTWARE: FUTCHIS ROLLING #1.0, VOISING #1.25
                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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NAME: Haley Jr., James F
                                        WAS STREWINS ASSURANCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FELECOMMUNICATION INFORMATION:
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                                                                                                              ANDRESSEE: James F. Haloy, Jr.
SIRRET: Fish & Neave, 1251 Avenue of the Americas
CITY: New York
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SIREET: Fish & Neave, 1251 Avenue of the
SIREET: Americas
CITY: New York
COINTRY. Gen.
                                                             STB - 13070
COUNTRY: US
MEDIUM TYPE: Floppy disk
COMPUTER: HAM Pr compatible
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TYPE: amino acid
STRANDEDRESS, Single
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REDISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: B179
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Scarch completed: May 6, 2003, 09:56:10
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LENGTH: 187 amino acid
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SOPTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                         142 HLKRYYGRILHYLKAKEYSHQAWTIVKVEILKNEYFINKLTGYLKN 187
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CLASSIFICATION:
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Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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166 166 166 166	Length 1
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OBMERAL INFORMATION:
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CURRENT FILING DATE: 1998-07-13
EARLIER APPLICATION NUMBER: 60/052,516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLISANT: No. 111, decree N
APPLISANT: No. 141, decree N
TITLE OF INVENTED BROOTI
FILE REFERENCE: BROOTI
FILE REFERENCE: BROOTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 98 46
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APPLICANT: Mark W. Rixon
                                                                                                                                                                                                                                                                                                                         SOFTWAKE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CUPRENT ANDREW AFROM NUMBER: 08/09/152/068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Wayne Kindsvegel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT Darrell of Fouklin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFIWARE: Patentin Ver. 2.0
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                                                                                                                                                                                             TMH : 344A,
                                                                                                                                                                                                                                        CENCIH: 165
                                                                                                                                         ORGANISM: Homo supiems
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IMPE: PMI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lel Hikryygrelhylkakeysbyawtivrvellrnfyrinkligylkn 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 HERRYY PETHYLAAKESSHOAWITYKYETERNEYRINGD YERN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.1 HIKEYYPTRILHYLKAKEYSHCAWTIVKVEILKNEYRINRLIGYLKN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           y Match
Local Similarity 95.8%; Score 829; 18 1; Length 166;
Local Similarity 95.8%; Pred. No. 4.4e 77;
bes 159; Conservative 1; Mismatches 6; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MSEMILUTETURS SAPEGORITURE INTERPRETATION TO THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE 
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              35.63
Score 829; DB 15;
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         Length 166;
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-350-232-7
                                                                                                                                                                                                                                                                       : SUFTWARE: FastSEQ for Windows Version 4.0 : SEQ ID NO 7
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: GENERAL INFORMATION:
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US-09-245-29+-7
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APPLICANT: Grant, Francis J.
APPLICANT: Rixon, Mark W.
APPLICANT: Kinder ael, Wayne
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APPLICANT: Rixon, Mark W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Conklin, Darrell C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match 95.6%; Score 829; DB 16; Length 146; Best Local Similarity 95.8%; Pred, No. 3.4e-77; Matches 159; Conservative 1; Mismatches 6; Indels 0; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT FILING DATE: 1999-07-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: 08/00/250,242
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                                                                                                                                                                                                             LENGTH: 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
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Seamenage 5. Application US/05462941

GENERAL HESENATION:
GENERAL HESENAME COX III, decrea N

APPLICANI: COX III, decrea N

APPLICANI: Rolder Biotechnology, inc.
TITLE OF INVENTION: Derivatives of Growth Hermone and Related Proteins
FILE REFERENCE: 4152-1-pcv

FULE REFERENCE: 4152-1-pcv

FULE REPRESENT FILING DATE: 0.000-01-01-01

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PRIOR EILING DATE: 1997-04-23
NUMBER OF SEC ID NOS: 22
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PRIOR APPLICATION NUMBER: POT TE TO T2200
PRIOR FILING DATE: 1844-04-16
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                                                                       PRIOR FILING DATE: 1997-07-14
NUMBER OF SEQ ID NOS: 41
                                                                                                                                                                                                                                                                        PRICE APPLICATION NUMBER: 50,7052,516
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APPLICANT: Eraunhofer-Gesellschaft zur Foerderung der Angewan
HITLE OF INVENTION: Buman Kecombinant Bota-Interferen With Improved
LITLE OF INVENTION: Solubility
FILE REFERENCE: 127-65050
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Best Local Similarity 95.8%; Pred. No. 3.4e-77;
Matches 159; Conservative 1, Mismatches 6; Indels (
APPLIFANT REALFTON, JOIN APPLIFANT RETERMENT FRIEREN NEIA LIEUE EF INVENTEN. N. WELL NACHUE AND ER TEIRS WITH INTERFER N NEIA LIEUE EF INVENTEN EN AFTEN FALLEN, LEWE SURENT APPLIFANT K. HOHER, G./T. (176.) 14. (2006) 14. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15. (2006) 15.
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No. 3.4e-77: Matches 159; Conservative 1: Mismatches 6; Indels
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FRISH APPLICATION NUMBER: USEN GC/133,785
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TITLE OF INVENTION: NOVEL NUCLETC ACTOS AND PROTEINS WITH INTEREBRON-RETA ACTIVITY
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Local Similarity 95.8%; Pred. No. 3.4e-77;
hes 150; Conservative 1; Mismatches 6; Indels 0; Gaps
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; Sequence 16, Application US/09732436
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Prayaga, Subbirdas K
APPLICANT: Shimkets, Richard A
Tiplicof ENVENTION: Novel Polypoptides and Polypoptides Encoding Same
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; GENERAL INFORMATION:
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NUMBER OF SEQ ID NOS: 26
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 95.6%; soore 829; DR 20; Length 166; Best Local Similarity 95.8%, Fred. No. 3.4e 77; Matches 159; Conservative I; Mismatches 6; Indels
                                                                                                                                               CURRENT FILING DATE: 2001-09-13
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APPLICANT: Maxygen ApS
TITLE OF INVENTION: Interferon-Beta Variants and Conjugates
FILE REFERENCE: 0202us810
                                                              PRIOR APPLICATION NUMBER: 60/1701/20 PRIOR FILING DATE: 1999-12-10
                                                                                                        PRIOR APPLICATION NUMBER: 60/169,887 PRIOR FILING DATE: 1999-12-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHRRENT APPLICATION NUMBER: HS/09/648, 569A
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ORGANISM: Homo sapiens
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    Mismatches

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LENGTH:

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RESULT 14
US-09-732-4-6D-16
Sequence 16, Application US/09732436D
GENERAL INFORMATION:
APPLICANT: Prayaga, Subbirdas K
APPLICANT: Shinkets, Richard A
FITTE OF INVENTION: Novel Polypertides and Polymaclootides Encoding Same
FILE REFERENCE: 15966-615
FILE REFERENCE: 15966-615
CURRENT ACTIT ACTU MOMBER: 50/170,752,400D
CURRENT FILING DATE: 2000-12-07
FRIOK APPLICATION NUMBER: 60/170,230
PRIOK APPLICATION NUMBER: 60/170,230
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US-09-791-537-95294
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Matches 159: Conservation
                                                                                                                                                                              Sequence 95293, Application 95/09791537 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 95.6%; Score 829; DB 21; Length 166;
Hest Local Similarity 95.8%; Pred. No. 3.4e 77;
Matches 154; Conservative 1; Mismatches 6; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 16
FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: 03/09/791,537
CURRENT FILING DATE: 2001-02-22
                                                              APPLICANI: Bionomix, Inc.
APPLICANI: Debe, Derek
APPLICANI: Debe, Derek
APPLICANI: Datzer, Joseph
THILE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBE
THILE OF INVENTION: METHODS OF USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 26
SOFIWARE: Patentin Ver. 2.1
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                                                                                                                                                                                                                                                                                                                                                             121 HUKRYYGRILHYLKAKEYSHCAWTIVKVEILRNEYRINKLIGYLRN 166
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61 EMIQNIFAIFRGDSSSTGWNETIVENLLANVYHQINHLKTVLEEKLEKEDFTRGKLMSSL 120
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Pred No 3,4e-77;
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: NUMBER OF SEQ ID NOS: 153055
; SOPTWARE: Patentin version 3.0
; SEQ ID NO 95293
; LENUTH: 166
; TYPE: PRT
; OFGANISM. Pdb laula
US-09-791-537-95293

OURLY MATCH
DEST.LCC3 STAILARITY 95.8%, Fred. W3. 3.4e-77;
MATCHES 159; Conservative 1; Mismatches 6; Indels 0; Gaps
Matches 159; Conservative 1; Mismatches 6; Indels 0; Gaps
OURLY MATCHES 159; Conservative 1; Mismatches 6; Indels 0; Gaps
OURLY MATCHES 159; Conservative 1; Mismatches 6; Indels 0; Gaps
OURLY MATCHES 159; Conservative 1; Mismatches 6; Indels 0; Gaps
OURLY MATCHES 159; Conservative 1; Mismatches 6; Indels 0; Gaps
OURLY MATCHES 159; Conservative 1; Mismatches 6; Indels 0; Gaps
OURLY MATCHES 159; Conservative 1; MISMATCH MATCHES 151; MISMATCH 166
OURLY MATCHES 159; Conservative 151; MISMATCH 166
OURLY MATCHES 159; MISMATCH 166
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Maximum DB seq length: 2000000000
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                Pred. No. is the number of results predicted by whomever have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distriction
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Match
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PCT-US02-40891-539
PCT-US02-40891-1723
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PCT-US02-40892-154
PCT-US02-40892-167
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PCT-US02-40892-647
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O2	Sequence 26, Application US/00832658A GENERAL INFORMATION: APPLICANT: Popinsky, Blake AFFLICANT: Runkel, Laura AFFLICANT: Brickelmaior, Margot AFFLICANT: Brickelmaior, Margot AFFLICANT: Willy, Adrian AFFLICANT: Wiltly, Faula THILE OF INVENTION: Jund Uses FILE NEERLENDE JOSS 5147A065 FILE NEERLENDE DATE: 2001-04-11 USES FILE NEERLENDE DATE: 1999-10-15 PRIOR FILING DATE: 1999-10-15 PRIOR FILING DATE: 1998-10-16 PRIOR FILING	RESULT 1	######################################
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RESULT 2 US-09-832-658A-25 Sequence 25, Application US/09832658A GENERAL INFORMATION:

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NUMBER OF SEQ ID NOS: 40
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PRIOR FILING DATE: 1998-10-16
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HILE REFERENCE: 40689 514/Au655
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                                                                                                                                                                                                                         ORGANISM: human
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of INVENTION: Polymor Conjugates of Interferon Beta-la

of INVENTION: and Uses
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Whitty, Adrian
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                                                 95./%: Score 830; DB 5; Length 166; 95.8%: Pred. No. 7.2e 84;
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Pred. No. 3.4e-85;
    6: Indels
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PCT-US02-40891-464
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LENGTH: 166
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PRIOR APPLICATION NUMBER: 60/398,008
PRIOR FILING DATE: 2002-07-24
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PRIOR APPLICATION NUMBER: 60/360,000
PRIOR FILING DATE: 2002-02-28
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                                                                121 BLKRYYGRILHYLKAKIYSHCAWTIVKYETILKNIYKINKILSIYLKN 166
121 HEKRYYGFILHYEKAKEYSHCAWI EVRVETERNEYFINELIGYERN 156
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| 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 15
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: Sequence 464, Application PC/IUS0240891
: GENERAL INFORMATION:

; APPLICANT: Human Genome Sciences, Inc.

PCT-US02 40891-464

RESULT 5

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PC1-US02 40891 527
3 Sequence 527, ApJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 527, Application:
                                                                                                                                                                                PRIOR APPLICATION NUMBER: 607-60,000
PRIOR FILING INTEL 2002 02 28
PRIOR APPLICATION NUMBER: 607-78,950
PRIOR FILING DATE: 2002-05-10
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                                            PRIOR APPLICATION NUMBER: 60/414,984 PRIOR FILING DATE: 2002-10-02
                                                                                                                       PRIOR APPLICATION NUMBER: 60/398,008 PRIOR FILING DATE: 2002-07-24 PRIOR APPLICATION NUMBER: 60/411,455
                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/341,811 PRIOR FILING GATE, 2001:12 21
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                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: PCT 79502 740891
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Human Genome Sciences, Inc
                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Albumin Fusion Proteins
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PRIOR APPLICATION NUMBER: 60/420,245
PRIOR FILING DATE: 2002-10-23
PRIOR APPLICATION NUMBER: 1002-10-23
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PRIOR FILING DATE: 2002-11-05
PRIOR AFFILINATION NUMBER, 60/351,560
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PRIOR APPLICATION NUMBER: 602500,000
PRIOR FILLING DATE: 2002-02-28
ENIOR APPLICATION NUMBER: 6023/8,950
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ORGANISM. Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 EMEGNIFALFREGESSIGWNEIIVENGLANVYHQINHLKTVLEEKLEKEDFIRGKLMSSL 120
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APPLICATION NUMBER: 60/417,611 FILING DATE: 2002-10-11
                                                                                              APPLICATION NUMBER: 60/411,355
FILING DAIL: 2002-09-18
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PCT-US02-40891-539
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GENERAL INFORMATION:
APPLICANT: Human Ge
Obery Match 95.6%; Score 82%; DB 1; Best Local Similarity 95.8%; Pred. No. 9.8c-84; Matches 159; Conservative 1; Mismatches 6
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Rest Local Similarity 95.8%;
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CURRENT APPRICATION NUMBER: [PTC/US02/4089]
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CURRENT FILING DATE: 2002-12-23
FRIOR AFFLEYATION MEMBER: 60/441.811
PRIOR FILING DATE: 2001-12-21
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PRIOR APPLICATION NUMBER: 60/420,246
PRIOR FILING DATE: 2002-10-23
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PRIOR APPLICATION NUMBER: 60/414,784
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TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PF564PCT
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121 HEKRYYĞKILIIYEMAKEYSIRĞAWTEVKVELLIKIYYETINGTĞYEKI 166
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Similarity 95.8%; Pred. No. 9.3e-84;
Application PC/1080240891
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Sequence 1725, Appli
GENERAL INFORMATION:
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CURRENT FILING DATE: 2002-12-2*
FRICE APPLICACIÓN HUMBER: 67/441,811
                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Albumin Fasion Proteins FILE REFERENCE: PF564PC1
PRIOR APPLICATION NUMBER: 60/417,611
                              PRIOR FILING DATE:
                                                                                                     PRIOR APPLICATION NUMBER: 60/411, 855
                                                                                                                              PRIOR APPLICATION NUMBER: 50/398,008 PRIOR FILING DATE: 2002-07-24
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                                                 PRIOR APPLICATION NUMBER: 60/414,984
                                                                            PRIOR FILING DATE:
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SEQ 15 NO 153
      Best Local Similarity
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NUMBER OF SEO ID NOS: 2222
SOFTMARE: Patentin Ver. 2.0
SEO ID NO 1725
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PRIOR APPLICATION NUMBER: 60/341/811
PRIOR FILLS CATE, 2001 12-21
PRIOR APPLICATION NUMBER: 60/460/000
PRIOR APPLICATION NUMBER: 60/270 12-
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CURPENT FILLN: PALE: 2002-12-23
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                                                                                      ORGANISM: Homo sapiens
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Score 829; DB 1; Length 166; Pred. No. 9.3e-84;
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Best Local Similarity 95.8%; Prod. No. 9.3e 84;
Matches 159: Consorvative [; Mismatches 6
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LENGTH: 166
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                                                                                                                                                 61 EMIQNIFATEPONSSSTÖMNETTVERFT ZAVVE JEBBLETVE FELLEKERETEGELISSE. 120
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PCT-US02-40892-165 ; Sequence 165, Application PC/TUS024C892

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PCL USOZ 40892-167; Sequence 167; Application PC/FUSO240862; GENERAL INFORMATION:
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929412;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammadia; Eutheria; Primates; Catarrhini; Cercopitheeidae;
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ol-NoV 1998 (FEMBLE). 08. Last sequence update)
ol DEY 2001 (FEMBLE). 19. Last annotation update)
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MEDIJINE 99156140; PubMed 10048395;
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                                                                                                                                                                                                                          FREILIMINARY;
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92.8%; Prod. No. 1.46-64;
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                                                                                                 EMBL; AF238613; AAG14170.1; HSSP; P01563; 2HIE.
                                                                                                                                                                                                                                                 transcriptional expression define carly prognancy.";
Submitted (FEB-2003) to the EMBL Section, DDRJ databases.
-!- SIMILARITY: HELONGS TO THE INTERFERON ALPHA, BETA AND DELIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2001 (TrEMBLIEL, 16, Fronted)
01-MAR-2001 (TrEMBLIEL, 16, Last sequence update)
01-BEC 2001 (TrEMBLIEL, 19, Last annotation update)
Interferon tau.
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                                                   InterPro; IPR000471; Interferon_abd.
                                                                                                                                                                                                                                                                                                                                                                                    "Cloning boyine interferon-tau denes and characterizing their transcriptional expression during early premiurcy.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bovidae; Bovinae; Bos.
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Mammalia: Eutheria: Cetartiodactyla: Ruminantia: Pecora: Bovoidea:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bos taurus (Bovine).
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J. Interferon Res. 12:153-160(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
Artursson K., Gobl A., Lindersson M., Johansson M., Al
Submitted (FFR 179) to the PMG/Second/JUOKI database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chung Y.G., Seidel G.E. Jr.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9913;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=92348930; PubMed-1640116;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 HLKRYYGRILHYLKAKEYSHCAWIIVKYUILKNUYKINKLIGYLKN 166
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Eutheria; Cetartiodactyla; Suina; Suidac; Sus.
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                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chariler M., L'Haridon R., Boisnard M., Martal J., Saye P., "Cloning and structural analysis of four genes emoding interferonomega in rabbit,";
J. Interferon Res. 13:313-322(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDILINE 94132653; PubMed=8301151; Charlier M., L'Haridon R., Hoisna
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oryctolagus cuniculus (Rabbit)
Eukaryota: Metazea: Chordata: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19 last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota: Metazoa: Chórdata: Crapiata: Vertebrota. Enteleostoa:
Mammaliu: Eutheria: Lacomorpha: Leporidae: Oryotolaque
                                                                                                                                                                                                                                                                            SECHENCE
                                                                                                                                                                                                                                                                                           Antiviral:
                                                                                                                                                                                                                                                                                                                                                            Ptam: PF00143; interferon; 1.
PRINTS; PR00266; INTERFERONAR
                                                                                                                                                                                                                                                                                                                                                                                                             EMBI; $68999; AAC60525.2;
HSSP; P01563; 2HIE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antiviral; Cytokine.
SEQUENCE 195 AA;
                                                                                                                                                                                                                                                                                                         PPOSITE: PS00252; INTERFERON_A_B_D; 1.
                                                                                                                                                                                                                                                                                                                                            ProDom; PD000550;
                                                                                                                                                                                                                                                                                                                                                                                               InterPro: IPR000471; Interferon_abd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Interferon-omega48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART: SM00076: IFabd: 1.
PROSITE: PS00252: INTERFERON_A_B_D: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS: PR00266; INTERFERONAR, ProDom; PD000550; Interferon_c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ptam: PF00143; interferon;
172 RRAFSSTADLQESLRS 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                           th SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                  151 LENEYRINELTGYLEN 166
                                                                 112 LHQQLQGLETCLVQAMGEEDSVLTADSPTLMLKRYFQRTFJYLDEKKHSGCAWELVPMEI 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 158 EYSDCAWELIRVEMMR 173
                                                                                                                                                                                                      y Match 29.9%; Score 261; DB 6; Local Similarity 41.9%; Pred. No. 1.8e-15; hes 57; Conservative 21; Mismatches 58
                                                                                            91 VYBQINHLKIVLEEKLEKEDETPÜALMSSIHLKEYVARTLIHYLKAKESRAMTIVEVET 150
                                                                                                                                  52 CLKORRDEGEPPEVVNGSGEGKHGAVSVLHEMLQQIENLLHTAHSSAAWNNTLLEELHAA 111
                                                                                                                                                                   31 CLKDPMNFDIPEEIKQLQQFQKEDAALTIYEMLQNIFAIFRQDSSSTGWNETIVENLLAN 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              39 RILLAQMN-RESTHSCEQURKDFG! PWEMVFGDQTQKDQATSVIHEMIQQCFNLFHTEHSS 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19 KLIMÇENGEL ETGEKÜRMNEDIFEETKULÜÜFÜKEDAALTIYEMLQNIFAIFRODSSS 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                  FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EYSHCAWTIVRVEILR 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAWNITLLEQLCTGLHQQLDDLDACLGQVMEEKDSALGRMGPILTVKKYFQGIHVYLKKK 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGWNETTVENLLANVYHQINHLKTVLEEKLEKEDFTRGALMSSLHLKRYYGFILHYLKAK 136
                                                                                                                                                                                                                                                                                                                             SM00076; IFabd;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                           Cytckine.
195 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                        Interferon_abd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Interferon_abd; |.
                                                                                                                                                                                                                                                                       21981 MW; D4D2E3EE5134AE5E CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22139 MW: 68902443P203E50A 0E064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30.1%: Score 262.5; DB 6, Length 195, 40.4%; Pred. No. 1.3e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29; Mismatches 49; [mdw]s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          195 AA
                                                                                                                                                                                                    58, Indeis
                                                                                                                                                                                                                                    Length 195;
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Q28845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local &
                                                   "Cloning and analysis of a gene encoding ovine interferon alpha-tl."; Gene 106:281-282(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1996 (TrEMBLREL 01, Created)
01-NOV-1996 (TrEMBLREL 01, Cast sequence update)
01-DEC-2001 (TrEMBLREL 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                        Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammaila; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Novoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                 Ovis aries (Sheep).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ovine interferon alpha precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q28562
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AMY 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL: $69000: AACTO
HSSP: P01563; 2HIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tharlier M., I Haridon F., Polsmärd M., Martal J., Gaye P.; "Choning and structural analysis of four genes encoding interferon-omega in rabbit.";
J. Interferon Res. 13:313-322(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oryctolagus cuniculus (Rabbit).
Dakaryota: Metassa, Chordata, Cramiata,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV 1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                              Whaley A.E., Carroll R.S., Imakawa K.;
                                                                                                                                                    MEDLINE 92037070, PabMed-1937057:
                                                                                                                                                                                                                                                                             NCBI_TaxID=9940;
                                                                                                                                                                                                                                                                                                                       Bowidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SECTIONSE
SECTIONSE
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ProDom; PD000550; Interferon_abd: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro: IPR000471; Interferon_abd
Pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metampa, Chordata, Cramiata, Vertebrata; En
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryetolagus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q28845
                    -!- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                       TISSUE-LIVER;
                                                                                                                                                                                                                      SEÇUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00252; INTERPERON_A_B_D; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SMART; SM00076; Trabd;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=94132653; PubMed#8301151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9986;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      172 BRAFSSTADLQESLRS 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        151 LRNFYRINRLTGYLRN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112 LBQQTQCLETCLQQAMCPERSVI TARSETI MI KBYTQETPLYLDEKKIISO:AWELVEMSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 VYECTRELKTVLEEKLEKEEEEGWACHSSTELKRYVORTHRYLKAKRYSBOAWTIVRVEL 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52 OLKTERGEGETERVYNGSGELENGTVSVLHUMDOCTFMLLHTARGGAAMKREGLIRGETA III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31 CIKDEMNEGIFEEIKQLQQCKEGAALIIYEMLQHIDAIFWQOSSSEGWHETIVEHLLAN 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FAMILY
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                                                                                                                                                                                                                                                                                                                   Caprinae, Ovis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 Cytokine.
190 AA, 21956 MW, 33TEBT102586A928 TR364:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Schweitstize 21, Mismatches 60; Indols
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29.0%; Scort 25%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              195 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 6: Length 195;
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                                                                                                                                                                               parry Match
                                                                                                                                                      Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ovis aries (Sheep).
Rukaryeta Metazoa: Chordata: Craniata: Vertebrata: Enteleostomi;
Mammalla: Entheria: Cetartiodactyla: Kuminantia: Recora: Bovoidea
Rovidae: Cuprinae: 1978.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      028545
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of New 1996 (fremMille), of, dast sequence update)
of DEC 2001 (fremMille), 19, dast annotation update)
                                                                                                                                                                                                                                              SEQUENCE 195 AA:
                                                                                                                                                                                                                                                                                                                                   Antivital Cytokine: Signal.
                                                                                                                                                                                                                                                                                                                                                      Probable Phagosta: Interferon_abd; 1.
SMARI: SMOROTO: IFAbd; 1.
PROSTIE: ESHOROS: INTERPERON_AB_D; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro: IPROHO471; Interteron_abd.
Plan: PEGG143; interteron: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL: 026254; AABO6828.1;
HSSP: Pul563; ZHIE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Biochim, Biophys. Acta, Gene Struct, Expr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                omesa and IFN tau; gene structure, biological properties and unusual species specificity.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0285455
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS: PRODUCT: INTERPLEMAN.
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52 CLKORKOFGEFREVVNOSGFGKNGTVSVLHEMLGGIENLLHTARSSAAMNNTLLEELHTA 11:
                                                        31 CLKDRMNFDIFEEIKOLOOFOKEDAALTIYEMLONIFAIFRODSSSTÖWNETIVENILAN 90
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                                                                                                                                                         Similarity
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195 AA) 22006 MW;
                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                          22010 MW:
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                                                                                                                                                      40.4%;
                                                                                                                                                   29.0%; Score 253; DB 6
40.4%; Pred. No. 9e-15;
                                                                                                                       21; Mismatches
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                                                                                                                                                                            DB 6; Length 195;
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                              Saquinus oedipus (Cotton-top tamarin).
Eukaryota: Metazoa: Chordata: Cianiata: Vertebrata: Euteleostomi:
Mammalia: Eutheria: Primates: Platyrrhin: Callitrichidae: Saquinus
                                                                                                                                                                                                                                                         01-DEC-2001 (TEMBLIE). 19, Freated)
01-DEC-2001 (TEMBLIE). 19, Last sequence update)
01-MAR-2002 (TEMBLIE). 20, Last annotation update)
NCBI_TaxID 9490;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     095J78
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                                                                                                                                                                                                                                     Interferon alpha precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1996 (TrEMBLIEL 01, Created)
01-NOV-1996 (TrEMBLIEL 01, Last sequence update)
01-DEC-2001 (TrEMBLIEL 19, Last annotation update)
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Pfam; PF00143; interteron; 1.
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38.6%; Prod. No. 9.
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Best Local s
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HSSP; P0156; 2HTE.
InterPro: 1PR000471; Interferon_abd.
Plam; PP00143; Interferon; 1.
FRINTS: PR00256; INTERFERONAB.
ProDom; PD000550; Interferon_abd; 1.
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01-NOV-1996 (IrEMBLrel. 01 Tast sognero update)
01-DEC-2001 (TEMBLrel. 19 Last annotation update
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Submitted (GCT-1999) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: BELONGS TO THE INTERESPON ALPHA, HETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE-94132652 - ProbMod-8401151
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Mammalia: Puthoria: Lagramorpha: Laporidae, Osystelagus
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PROSITE: PS00055: INTERFEREN_A_B_D: UNKNOWN_1.
                                                                                                                                                                                                                                             SMART: SM00076; IFabd: 1.
PROSITE: PS00252: INTERFERON_A_B_D: 1.
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"Moning and structural analysis of four genes encoding into force
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"Recombinant cottonotop tamarin interferono a new tool for a primate
                                                                                                                                                                                                                      Antiviral;
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                                                                                                                                                                                            4AAE6EB175F87F87 CBC64
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Mismatches 56,
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                                                                                                                                  DB 6; Length 195;
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                                                  Homo sapiens (Human).
Eukaryeta, Metanea, Cheriata, Praniata, Vertekrata, Inteleostomi:
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oryetolagus cuniculus (Rabbit).
Pularyeta, Metata, Cherdata, Cremiata, Vactabrata, Buteleostomi,
Mammalia, Butheria, Lagomorpha, Leporidae, Oryetolagus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1996 (TrPMBLIE), 01, Greated)
01-NOV-1996 (TrPMBLIE), 01, Last sequence update)
01-NBC-2001 (TrPMBLIE), 19, Last annotation update)
                                                                                                                                                                                                                   01 NOV 1996 (TERMBLIEGE OF Created)
01 NOV-1996 (TERMBLIEGE OF LAST Sequence update)
01-DEC-2001 (TERMBLIEGE 19, Last annotation update)
Interferon omega-1 (Fragment).
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J. Interferon Res. 13:313-322(1993).
! SIMILABITY: BELONGS TO THE INTESFEE B ALFHA, BETA AND DEDIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Charlier M., E'Haridon E., Polsmard M., Martal J., Caye P.:
"Cloning and structural analysis of four genes enceding interferon
                              MERI_laxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SECHENCE
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PROSITE; PS00252; INTERFERON_A_B_D; 1.
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Charlier M., E'Haridon E., Poismard M., Martal J., Gayo P.:
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ence 195 AA;
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Query Match
Best Local Similarity
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                                                  SEQUENCE.
                                                                                                       Plans PEGG143: interteron; I.
Projems Pibousso: Interteron_abd; I.
PROSITE: PSUU252: INTERPEDON_A B_D; UNKNOWN_1.
                                                                                                                                                                                                                      Terevacei A., Aurisicehio L., Ciliberto G., Palombo F., Traboni C. "Recombinant cotton top tamarin interteron: a new tool for a prin heparitis model.";
Submitted (ACT 1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC 2001 (TEMBLEEL 19, Created)
01-DEC 2001 (TEMBLEEL 19, Last sequence update)
01-MAR 2002 (TEMBLEEL 20, Last annotation update)
                                                                 ) IVI
                                                                                             Antiviral: Cytokine: Signal.
                                                                                                                                                                              EMBL: AJ250196; "AC44125.1;
                                                                                                                                                                                                                                                                                                                                   Enkuryota: Metazoa: Chordata: Craniata: Vertebrata: Enteleostomi;
Mammalia: Entheria: Primates: Platyrrhini; Callitrichidae: Sagain
                                                                                                                                                                                                                                                                                                                                                                  Saquinus bedipus (Cotton top tamarin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77.03.60
                                                                                                                                                          InterPro: IPR000471; Interferon_abd.
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PROSTTE: PSDOOT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE 174 AA; 20249 MW; BICC9AB5993016C5 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINTS; PRO0266; INTERFERONAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ptam; PFOULAR; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMRL: 025670; AAA70091.1; HSSP; P01563; 281E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "The clouing, sequencing of the primary structure and expression in E. coli Chinese buman IFN-Wl gene.";
                                                                                                                                                                                                          I SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro. IPRO00471: Interteron_abd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (Aik 1995) to the BM8D SeePark 1992 databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SECHENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zend Q., Li M., Zhou Y., Guo H., Hou Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SECUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41 CLKDEMNEDTPEETKOLOOFOKEBAALTTYEMLONTFATEKODSSSTGWNETTVENLLAN 90
                                                                                                                                                                                              FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FAMILY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMKSLELSINMQERLRS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LHQQUQHTETCTTQ-VVGEGESAGAISSPALTLERYFQGIRVYLKEKKYSDCAWEVDRME 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ILKNEYKINKLTGYLKN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VYHOINHEKIVLEEKLEKEDFTROALMS:SLHLKEYYGRILHYLKAKEYSHCAWTIVRVE 149
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                                                               183
                                             22052 MW;
28.7%;
37.8%;
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88.0%; Pred. No. 1.5e-14;
Five 42; Mismatches 51, Indels
Score 250; DB 6;
Prod. No. 1.6e-14;
                                             INTERFERON-ALPHA.
9E43890FE0329DBA-CR064;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Cloning bovine interferon-tau genes and characterizing their transcriptional expression during early pregnancy."; Submitted (FEB-2000) to the FMRE, GenBank, TORE databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antiviral; Cytokine.
SEQUENCE 195 AA; 22160 MW; 6DB1FAE39HF034FA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00076; IFabd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; P01563; 28HE. Interferon_abd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AF238611; AAG14168.1;
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NCBI_TaxID=9913;
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Mammalia; Eutheria; Cetartiodaetyla; Ruminantia; Pecera; Bezoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bos taurus (Bovine).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PR00266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00143; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chung Y.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
158 EYSDCAWEIIRVEMMR 173
                                                              137 EYSHCAWTIVRVETLR 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  165 EVVRAEIMRSFSLSTNLQKGLRS 187
                                                                                                                                                                                                                                                                                                               19 KILIMQIJNGSG - EYCIJKURMNEDJEFEIKQIQQEQNEJAALIJIYEMIQNIFAIEKQISSS 76 :1| ::| | | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | ::| | 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98 AAWNTTLLEQLCTGLQQQLEDLDACLGPVMGEKDSDMGKMGPILFFVKKYFHDIHVYLKEK 157
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                                                                                                                                                                                                    TGWNETIVENLLANVYHQINHLKTVLEEKLEKEDFTRGALMSSLHLKRYYGRILHYLKAK 136
                                                                                                                                                                                                                                                                      RITARMN-RISPHECIODERDEGIEDEMVEGSOLOKIONISVIHEMIQQUENIFIHERES 97
                                                                                                                                                                                                                                                                                                                                                                                                                       53;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTERFERONAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                    28.3%; Score 246.5; DB 6
39.0%; Pred. No. 3.4e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                       28; Mismatches
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η5-ψ9-832-658Δ-25
872
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GenCore version 5.1.4_p5_4578
Copyright (c) 1993 - 2003 Compugen Lto-
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SOFTWAKE: Patentin Ver.
                                                         Penhalining Prior Application data removed NUMBER OF SEC ID NOS: 2222
                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/351,360 PRIOR FILING DATE: 2(02:01-28
                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2002-10-23
PRIOR APPLICATION NUMBER: 50/423,623
PRIOR FILING DATE: 2002-11-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 2002-10-02
PRIOR APPLICATION NUMBER: 60/417-611
PRIOR FILING DATE: 2002-10-11
PRIOR APPLICATION NUMBER: 60/420,246
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PRIOR APPLICATION NUMBER: 60/441 H11
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APPLICANT: Runkel, Laura
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PRIOR APPLICATION NUMBER: 60/417,611
PRIOR FILING DATE: 2002-10-11
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PRIOR APPLICATION NUMBER: 69/360,000
PRIOR FILING DATE: 2002-32-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 2002-07 24
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61 FMIQNIFAITEQUESSTOWNFITVERFLANVARIGIND KIVIERNIERSTEDENSMIMSSL 120
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                                                                                               1 MSYNILIGELORSSNEQCOXILLWOLNGRILEYCILKDRMNEDIPEEIKOLOOFOKEDAALTIY 60
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98.8%: Pred. No. 6.8e-86;
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PCT-0802 40891 527; Sequence 527, Application FC/1080210891; GENERAL INFORMATION:
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PRIOR APPLICATION NUMBER: 60/941.811
PRIOR FILING DATE: 2001-12-21
ERIOR AUTLICATION NUMBER (0,760,000
FRIOR FILING DATE: 2002-02-28
            FILE REFERENCE: P4564PC1
CURRENT AFF: TATION MUMPES FOT 0.77, 30801
CURRENT FILING DATE: 2002-12-23
PRICE AUFLIATION NUMBER: 60,34..811
FRICE FILING DAIE. 2301 12 21
PRICE AUFLIATION NUMBER: 60,380,000
PRICE TATION NUMBER: 60,380,000
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CURRENT FILING DATE: 2002 12 23
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                                                                                                                                                         APPLICANT, Human Genome Sciences, Inc. Prints of INVENTION, Albumin fusion Froteins
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PRIOR APPLICATION NUMBER:
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PRIOR FILING DATE: 2002-02-28
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ORGANISM: Homo sapiens
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    Mismatches

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PRIOR FILING DATE: 2002-10-23
PRIOR APPLICATION NUMBER: 60-422-623
PRIOR FILING DATE: 2002-11-05
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FRIOR APPLICATION NUMBER: 607441,811
FRIOR FILING DATE: 2001 12 21
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Local Similarity 98.8%;
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                                                                                                                        61 EMIGNIFALERGESSSIGWNFILVENLIANVYBGINHLEIVLEETLESTESTESGALMSSL 126
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Similarity 98.8%; Pred. No. 6.8e-86;
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PCT-US02-40892-153; Sequence 153; Application PC/TUS0240892; GENERAL INFORMATION:
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LENGTH: 166
                                                                                                                      APPLICANT: Human Genome Sciences, Inc.
TITLE OF INVENTION: Albumin Fusion Proteins
FILE REFERENCE: PF574PCT
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                       **TREEFH APPLICALL'S BUSINES PICCESS_3089_
CORRENT FILING DATE: 2002-12-2*
**RELOS APPLICALISM NUMBER, 66,7341.811
PRIOR FILING DATE: 2001-12-21
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CURRENT FILING DATE: 2002-12-23
FRICK AFFLICATION NUMBER: 60,7441,811
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PRICE APPLICATION NUMBER: 50,360,000
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PRIOR APPLICATION NUMBER: 60/414,984
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PRIOR APPLICATION NUMBER: 60/414,984
PRIOR FILING DATE: 2002-10-02
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PRIOR APPLICATION NUMBER- 60/460 000
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PRIOR APPLICATION NUMBER: 60/420, 246
PRIOR FILING DATE: 2002-10-28
FRIOR APPLICATION NUMBER: 60/423,023
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PRIOR APPLICATION NIMBER: KD24GA, DOK
PRIOR FILING DATE: 2002-07-24
PRIOR APPLICATION NUMBER: 60,411, 355
PRIOR FILING DATE: 2002-09-18
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Remaining Prior Application data removed - See File Wrapper or PALM
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PRIOR APPLICATION NUMBER: 60,7378,950
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SEQ ID NO 154
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[FITS APPLICATION NUMBER 60,341,811
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PRIOR FILING DATE: 2002 01 24
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NUMBER OF SEO 10 NOS: 858
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                                             61 EMERNIE ALTERRISS ISWELT VERTELARANTER THE TELEVISION FOR MSSI. 120
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Pred. No. 6.9e-86;
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                       CURRENT APPLICATION NUMBER: PCT/CISO2/40802
CURRENT FILING DATE: 2002-12-23
PFIOR APPLICATION NUMBER: 60/341/811
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121 HEKRYKGR LHYLKAKEYSH°AWTIVRVEILKHEYEINRETGYEKN 166
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Local Similarity 98.8%;
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SEQ ID NO 647
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PCT-US02-40892-648
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CURPENT FILING DATE: 2002-12-28
FRICE APPLICATION NUMBER: 65/341,811
PPIOP FILING DATE: 2001-12-21
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                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/414,984 PRIOR FILING DATE: 2002-10-02 PRIOR APPLICATION NUMBER: 60/417,611
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PRIOR APPLICATION NUMBER: 50/378,950
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                                                                       FALOR APPLICATION NUMBER: 60/423,623
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APPLICATION NUMBER: 60/350,358 FILING DATE: 2002-01-24
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NUMBER OF SEQ ID NOS: 858

SOFTWARE: patentin Ver. 2.0

SEQ ID NO 648

LENGTH: 166

TYPE: PRT

ORGANISM: Homo Sapiens
PCT-USO2-40892-648
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Pred. No. is the number of results predicted by chance to have a score dreafer than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Rest.lt	Score	Query Match	Ouery Match Length	₽ ₽	ID	1
_	829	95.6	166	4.	US-09-397-992A-	992A-7
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RESULT 2 55.14567-4 ;Patent No. 5514567 ;Patent No. 5514567 APPLICANT: SUGANO, HARUO;MURAMATSU, MASAMI;TANIGUCHI,

: TITLE OF INVENTION: DNA AND RECOMBINANT (LASMID)

COMPAND AND THE PART OF THE PROPERTY OF THE PR	TIT 1 9-397-992A-7 9-397-992A-7 9-397-992A tent No. 6329175 tent No. 6329175 LELICANT: Crant, Francis J. FELICANT: Grant, Francis J. FELICANT: Kindsvogel, Wayne FELICANT: Kindsvogel, Wayne FELICANT: Kindsvogel, Wayne FELICANT: Kindsvogel, Wayne FELICANT: Kindsvogel, Wayne FELICANT: KINDSVOGEL, 98-46 FELICANT: LITE LAIL. 12-9-07-18 FIOR APPLICATION NUMBER: 60/101.012 KIOK FILING DATE: 1998-09-18 FIOR AFFILICALL: MUMBER: 60/101.012 KIOK FILING DATE: 1999-02-05 RIOK APPLICATION NUMBER: 60/142,766 RIOK PILING DATE: 1999-07-08 UMBER OF SEQ ID NOS: 33 OFTWARE: FastSEQ IOT Windows Version 3.0 Q ID NO 7 Q ID NO 7 Q ID NO 7 ORGANISM: Homo sapiens 9-397-992A-7 9-397-992A-7 95-8%: Score 829; IDH 4: ery Match 95-8%: Score 829; IDH 4: ery Match	28 341.5 39.4 156 4 US-09-487-792-20 25 271 51.3 238 4 US-09-487-792-3 25 271 271 272 273 28 4 US-09-487-792-3 271 272 273 275 275 275 275 275 275 275 275 275 275
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APPLICANT: Godowski, Faul J.
APPLICANT: Woodo, William I.
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FILING DATE: US MAR 1995
PRIOR APPLICATION DATA:
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FILING DATE: 27 OCT 1980
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                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                             REFERENTIZICATED NUMBER: IK
FELECOMMUNICATION INFORMATION:
TELLETWONE: (617) 861-6240
TELEFAX: (617) 861-9540
INFORMATION FOR SEO ID NO: 40:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 05 NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PILING TOTAL PRIOR APPLICATION DATA:

TOTATION NUMBER: US 07/787,840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 07/95,586
FILING DATE: 03-DBC-1992
PRIOR APPLICATION NUMBER: US 07/911,533
FILING DATE: 10 JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFIWARE: Patentin Release #1.0, Version #1.40 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 02-DEC-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA: APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Hearttein, Michael W. APPLICANT: Hauge, Brian M. APPLICANT: Selden, Richard F
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                  121 HEKRYYGETLHYEKAKEYSHÇAWFIVKVETEKNEYKINKETGYEKN 166
                                                       82 EMLQNIFAIFROOSSSTGWNFTIVENLLANVYHQINHLKIVLEEKLEKEDFIFGKLMSSL 141
                                                                                                61 EMLQNIFATERODSSSTOWNFTIVENILANVYHOINHLKTVLFFKLFKFDFIROAIMSSL 120
                                                                                                                                     Loca!
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 8 FILING DATE: 13-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                            LENGTH:
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159; Conservative
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                                                                                                                                                                                                                                     Similarity 95.8%;
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RATION NUMBER: 32,227
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Two Militia Drive
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                                                                                                                                                                                                                                                                                                                                          Linear
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| 05 NOV-1992
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142 HIKRYYGRILHYIKAKEYSHCAWTIVPVETI PNEYFINELTGYLEN 187

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APPLICANT: Godgeski, Paul
APPLICANT: Godgeski, Paul
APPLICANT: Wood, William I.
APPLICANT: Zhang, Dong-Xiao
TITLE OF INVENTION: NOVEL TYPE I INTEREERONS
FILE REFERENCE: 11669 501806
CURPENT APPLICATION NUMBER: 00706,032
CURPENT FILING DATF: 1948-12-07
EARLIER APPLICATION NUMBER: 507084,045
EARLIER FILING DAIF: 1948-05-04
NUMBER: 05-504
NUMBER: 05-504
NUMBER: 05-504
NUMBER: 05-504
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: ORGANISM: Homo sapiens
US-09-206-935-7
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                                                                                                      Ouery Match 95.6%; Score 829; DB 4; Length 187; Best Local Similarity 95.8%; Pred. No. 6.2e-83; Matches 159: Conservative 1; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 7. Application US/09206935 Patent No. 6299877 SENERAL INFORMATION:
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Patent No. 6299869
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SEQ ID NO 7
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CHERENT ADDITION HIMBER 12,00,20,2122
CHERENT FILING DATE: 1999-03-04
PP105 APEL ATECN HUMBER 191,00.06,25572
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APPLICANI: Godowski, Paul
APPLICANI: Wood, William I.
APPLICANI: Zhand, Poud-Xiao
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NUMBER OF SEQ ID NOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 HLKRYYGRILHYLKAKEYSHCAWTIVRVETLPNFYPINPLTGYLPN 166
22 MSYNLLGTUQRSSNFQCQKLIWGLNGRLEYCIKDRMNFDIPEEIKGLQQFQKEDAAL1IY 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 EMAQNIFAIFRQDSSSTGWNETTVENITANVYHQINHLKTVLEFKLEKEDETTGALMSSL 120
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                                                 1 MAYAALGALQASSNEQCQKLLWQLNGRLEYCLKDRMNEDIPEEIKQLQQFQKEDAALHIY 60
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; ORGANISM: Homo sapiens US-09-487-792-4
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SEQ ID NO 7
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               Matches
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Best Local
                                                              Bost
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CUFFENT APPRICALION NUMBER: US/09/487,792
CURRENT FILING DATE: 2000-01-20
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APPLICART: Wood, William I.
TITLE OF INVENTICA, No. 6300475el Inteleron
FILE REFERENCE: P1224R1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EARLIER APPLICATION NUMBER: WOLL EARLIER FILING DATE: 1999-07-21 NUMBER OF SEQ ID NOS: 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Ver. 2.1
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          local Similarity 95.
hes 150: Conservative
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Similarity 95.8%; Pred. No. 6.2e-83;
                                                   95.6%;
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Score 829; DB 4; Length 187;
Prod. No. 6.20-83;
!; Mismutches 6; Indels
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1 MAYAALGASQASSNEQOQXLL WÇI YORLEYETIKDERTERDEFTKQLQQFQXEDAALTIY 60

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Putent No. 5372207
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TILLE OF INVENTION: THARACTER COMPLEX
FILE REFERENCE: FERRENEE, ESPOYAZIS, 21
CURRENT APPLICALION RUBBER, ESCOYAZIS, 21
CURRENT FILING DATE: 1998-12-18
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OTHER INFORMATION: Description of Artificial Sequence, Human SIFNARZ linked by OTHER INFORMATION: Linker to human IFNEeta
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                                                                                                                                                                                                                                                                                                                                                           LENGTH: 415
                                                                                                                                                                                                          ORGANISM: Artiticial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6. HMIQNIFATFIGUESTI WKILLIVINGLANVI BELBEBEBEBEBEBEBEBEBEBEBEZALMSSI. 120
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                                                                                                                                                  US-08-477 - 310A-1
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; Patent No. 5814485
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                                                                       Matches 158; Conservative
                                                                                                            Query Match
                                                                                       Query Match 95.4%; Score 827; DR 2; Length 166; Best Local Similarity 95.2%; Pred. No. 8.86-84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 159;
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                                                                                                                                                                                                                                                                                 TELEPHONE: (510) 923-2704
TELEFAX: (510) 655-3542
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWAKE. Patentlu Release #1.0, Version #1.40
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Bacterial Fro
TITLE OF INVENTION: Polypeptides
NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: McAlary, Patrick J. APPLICANT: Wong, Kathleen M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             310 EMEQNIFATERQUSSSTEWNETTVENLLANVYBOTHALKTVLEKKEDFTROALMSSE 209
                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 HERRYYCKILHYEKAKEYSHOAWTIVKVEILKNEYKINKETGYEKN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      250 MSYNLLGFLØRSSNFØGØKLDWOLNGKLEYCLKUKMNFOTFFELKOLØOFOKEDAALTTY 369
                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                             : Hei A.L.
                                                                                                                                                                                                                                                                                                                                                                              NAME: Chung, Ling-Fong
REGISTRATION NUMBER: 3
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                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APTILICATION NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: California
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                                                                                                                                                                                                                                           SENGTH:
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1 MSYNLLGFLORSSNEOGQKILLWQLNGKLEYCLKDKMNEDIPEEIKQLQQFQKEDAALTIY 60
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                                                                                                                                                                                                                         amino acid
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                                                                                                                                                                                                                                             166 amino acids
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                                                                                                                                                                                        linear
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                                                                                                                                                                                                         Single
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                                                                         Z: Mismatches
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Pred. No. 1.9e-82;
1. Mismatches 6
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                                                                         6; Indels 0; Gaps
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61 EMEQNITATI'RQDSSSTGWNETTVENLLANVYHQTNalkTVLLEELEKEDI'TRAALMSSL 120

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                                            US-08-912-768-1
                                                                                    RESULT 13
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Sequence 1, Application US/08912768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 158; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
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APPLICATION DATA:
FILING DATE:
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ATTORNATY/AGENT INFORMATION:
NAME: Haley Jr., James F
KETISTRATION NUMBER: 27,
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TIFLE OF INVENTION: NO. 554572 Fel Muteins Of IFN-Beta
NUMBER OF SEQUENCES: 4
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APPLICANT: Cate, Richard L
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FELECOMMUNICATION INFORMATION:
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APPLICANT: Chow, Pingchang E
                                                                                                                                                                                                            121 HLKRYYGRILHYLKAKEYSHCAWTTVRVEILRNFYFINRLTGYLRN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: d
                                                                                                                                                                                                                                                                                                                             51 EMLONIFALFRODSSSTGWNETIVENLLANVYHQINHLKTFLEEKLEKEDFTRGKLMSSL 120
                                                                                                                                                                                                                                                                                                                                                                                                 61 EMIQNIFATERQDSSSTGWNETTVENULANVYHQTNHLKTVLFEKLEKFDFTEGALMSSL 120
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STATE: New York
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SikAnueDNESS: sin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MSYNILGELQRSSNEQCQKILWQINGRIJEYCIKDRMNEDIPEFIKQIQQFQKEDAALTIY 60
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| Similarity 95.2%, Fred. No. 1.56 82, | Indels 0: Gaps
| S8: Conservative 1: Mismatches 7: Indels 0: Gaps
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IBM PC compatible
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                                      RESULT 14
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Sequence 1, Application PC/TUS9503206
                                                                                                                                                                                                                                                                                               Matches 158; Conservative
                                                                                                                                                                                                                                                                                                                               Query Match
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                  -US95-03206-1
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                                                                                                                                                                                                                                                                                                                                                                                    ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                               HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Goelz, Susan E
APPLICANT: Cate, Richard L
APPLICANT: Pepinsky, Blake P
APPLICANT: Chow, Pingchang E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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                                                                                                                                                  61 EMIONTFATFRODSSSTGWIPTTVFNT LAWYEGTNELKTFTEFLER POPTPOALMSST 120
                                                                                                                                                                                                                                                                                        y Match 95.0%; Score 824, DB 3, iacouth 166;
Local Similarity 95.2%; Fred. No. 1.9e-82;
hes 158; Conservative 1; Mismatches 7; Indels 0; Gaps
                                                                                                                                                                                                                     1 MAYAALGAFIQASSNEQYQKITMQT NICHTENT YETEMBETE PETTEGLAGGEGKEDAALTIY 60
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COMPUTER: 18M PC compatible
OPERATING SYSTEM: PC-1808/MS-1858
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Fish & Neave, 1251 Avenue of the Americas
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GENERAL INFORMATION:

APPLICANI: Biogen, inc.
APPLICANI: Goelz, Susan E
APPLICANI: Cate, Richard L
APPLICANI: Pepinsky, Blake R
APPLICANI: chow, Pingchand E
TITLE OF INVENTION: Novel Mate

NUMBER OF SEQUENCES:

Novel Mateins of IFN-Beta

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Fateur No. 6127332
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APPLICANT. Gato, Richard E.
APPLICANT. Februsky, Bilderon R.
APPLICANT. Februsky, Bilderon R.
APPLICANT. Februsky, Bilderon R.
APPLICANT. Februsky, Bilderon R.
APPLICANT. Februsky, Bilderon E.
APPLICANT.
COMPUTER: HM PC COMPATIBLE
COMPUTER: HM PC COMPATIBLE
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ALTORNEY/AGENI INFORMATION:
NAME: Haley Jr., James F
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CMEDITER: HM PERCENDALISH
OFFICIAL SYSTEM: PRODUCTION
SOFTWARE: PARAMETER FOR DATA
OFFICIAL AND DATA OF THE ROLL SOFTWARE
APPLICATION NUMBER: PROFESS, 20 OFF
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SIPEER: Fish a Neave, 125 Avenue of the SIPEER: Americas
CIPE. New York
SIAIE: New York
COUNTRY: USA
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                                                                                                                                                                                                                                                                                COUNTRY:
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LENGTH: 187 amino acids
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SOPTWARE: Parentin Release #1.0, Version #1.25
CURKENT APPLICATION DATA:
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Score 829; DB 9; Length 183; Pred. No. 1.9e-76;
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APPLICANT: Horndes, Claus
APPLICANT: Andersen, Kim
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APPLICANT: Kasmussen, Poul Baad
APPLICANT: Federsen, Anders Hjelholt
TITLE OF INVENTION: NEW MOLITIMET' INTERFERON BEIA
TITLE OF INVENTION: POLYPEPTIDES
FILE REFERENCE: 0220us210
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TITLE OF INVENTION: and Uses
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CURRENT FILING DATE: 2001-04-11
PRIOR APPLICATION NUMBER: 60/104,572
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THEFFELLI HELLI 78 EMILONIFALERGOSS I CWREEL ARANAG HREEKIVELES LESTENDEN SANAGEN.
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Runkel, Laura
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CURRENT APPLICATION NUMBER: US/10/004.201

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GENERAL INC. MARCEL FORM

APPLICANT: Chen, Jian
APPLICANT: Godowski, Paul
APPLICANT: Godowski, Paul
APPLICANT: Godowski, Paul
APPLICANT: Zhang, Dong-Xiao
FILLE OF INVENTION: HUMAN INTEFFEEON EPSHON: A TYPE I INTEPFEEON
FILLE REFERENCE: P1224E2C1 (reglacomont)
CUMPENT AFFICIANTON HUMBER: US, 60, 617, 622A
CUMPENT AFFICIANTON NUMBER: US, 60, 617, 622A
PRIOR APPLICATION NUMBER: 00 49/202122,
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PRIOR APPLICATION NUMBER: US 60/245/645
PRIOR FILING DATE: 2000-11-02
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ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match 95.6%: Score 829; DB 9; Length 187; Local Similarity 95.8%, Pred. No. 1.9e-76; Pred. No. 1.9e-76; Indels Pred. 159; Conservative 1; Mismatches 6; Indels
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95.8%; Pred. No. 1.9e-76;
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US-09-832-659-2
Sequence 2, Application INS/09832659
Fateat No. US29020/55547AL
GENERAL INFORMATION:
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US-09-788-552-1
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LENGTH: 399
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Matches 159, Conser
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                                                                                                                                                                                   Matches 159; Conservative
                                                                                                                                                                                                                                                                   Query Match
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PRIOR FILING DATE: 2001-04.17
PRIOR APPLICATION NUMBER: 60/10.27
PRIOR APPLICATION NUMBER: 60/104/491
PRIOR FILING DATE: 1998-10-16
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PRIOR APPLICATION NUMBER: EP (0 44 0053.7
PRICE FILING DATE: 2000-03-23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: BIOGEN, INC. TITLE OF INVENTION: InterferentBota Pasion Proteins and Uses File preference: A064PCTSN)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Ver. 2.0
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ORGANISM: Homo sapiens
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EMIQNIFAIFEQDSSSTGWNETIVENCLANVYHOINH KTVLFFKIFKFFFFGALMSSL 120
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Similarity 95.8%, Prod. N., 5.1e 76;
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CURRENT AFTLE-ALEN NUMBER, 05,792,7927,850
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                                                                           94.88; Score 822; DB 10; Gength 166; 95.28; Pred. No. 8.56976;
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               I: Mismatohas
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               Indels
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Gaps
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: Sequence 42, Application US/09842859
: Patent No. US20020155547Al
: GENERAL INFORMATION:
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Fuldiration No. 382033021765A1
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                                                                                                                               APPLICANT: BIOGEN, INC.
TITLE OF INVENTION: Interteron Beta Fusion Proteins and Uses
FILE REFERENCE: A064PCISEQ
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PRIOR APPLICATION NUMBER: 60/104.572
PRIOR FILING DATE: 1998-10-16
                                         PRIOR APPLICATION NUMBER: 60/120,237 PRIOR FILING DAFE: 1999-02-16
                                                                                     CURRENT APPLICATION NUMBER: 05/05/832,659 CURRENT FILING DATE: 2001-04-11
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PRIOR FILING DATE: 1998-10-16
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NUMBER OF SEQ ID NOS: 29
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                                                                                                                                                                                                                                                                                                                                                      LET BULEYYOF HUMARAMAN SHOWEN NEVERBER AS UNSELFATION TO
                                                                                                                                                                                                                                                                                                                                                                                                    121 BEERYYGEILHYLEAKEYSBOAWTIVRVEILBWFYKINRETCYLRN 166
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                                                                                                                                                                                                                                                                                                                                                                                                                                           61 EMIANTASTERQUSSSEGWNETTVENULANVYHQTNHLKTVLEEKLEKEAATACAAMSAL 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   h 94.6%; Score 820; DB 9; Lenath 166;
Similarity 95.2%, Fred. No. 1.4e 75;
58; Conservative 2; Mismatches 6; Indels
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GENERAL INFORMATION:
APPLICANT: No. US20020068362Alartis AG
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US-09-725-433-4
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: TYPE: PRT
: ORGANISM. Homo sapiens
US-09-832-559-44
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Patent No. US20020155547A1
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                                                                                                                Sequence 4, Application US/09725433 Patent No. US/20020068362A:
TITLE OF INVENTION: Increased transcenc expression in retroviral vectors having a sca
TITLE OF INVENTION: attachment region
FILE REFERENCE: 4-309218/SYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cuery Match 94.6%; Score 820; DB 9; Length 423; Best Local Similarity 95.2%; Pred. No. 4.5e-75; Matches 158; Conservative 1; Mismatches 7; Indels
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PRIOR FILING DATE: 1998-10-16
PRIOR APPLICATION NUMBER: 60,7104,491
PRIOR APPLICATION NUMBER: 60,7104,491
PRIOR FILING DATE: 1998-10-16
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Best Local s
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SOFTWARE: PatentIn Ver. 2.0
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SOFTWARE: Patentin Ver. 2.0
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                                                                                                                                                                                                                                           145 HLKKYYGRILHYLKAKEYSHCAWTIVRVEILRNFYFINRLTCYLRN 190
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US-09-83-658-28

: Sequence 28. Application US/2008-2558

- Profication No. US20030021765A1
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CURRENT FILLING DATE: 2001-04-11
PRIOR AFFICATION NUMBER 68,004,572
PRIOR FILING DATE: 1998-10-16
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CUPPENT PILLING DATE: 2000-11-29
NUMBER OF SEQ ID NOS: 7
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NUMBER OF SEC ID NOS: 29
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121 HLKRYYGRILHYLKAKEYAACAWTIVRVEILKNEYEINKLIGYLKN 166
                                                                                   121 HLKRYYGKILHYLKAKBYSHCAWTIVKVETI,kNEYRINKI.IGYI,KN 166
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1: _(%1582,1 ; jdst ;).
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2: _(%1582,1 ; jdst ;).
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ALIGNMENTS

RESULT 1

AAY84949 standard, Protein; 166 AA.

AAY84949;

Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein. Amino acid sequence of human interferon beta la protein.
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                                         11 1 1 HK # 1
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                                                                                                                                                                                                                                                                                    Distributed 111
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RESULT 3

AAY70907 standard; Protein; 166 AA

31-JUL 2000 (first entry)

AAY70907;

Human; interferon beta; IPN beta; immunoalobulin; fusion protein; mutant

Human interferon-beta alanine substituted mutant 893A.

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Pred. No. 1.8e-70;
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RESULT 5

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Charle Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The motant was analysed In antiviral assays to assess the effects of motaling the histolines which chelate zinc in the crystal structure dimer. The His motants retained wild type activity suggesting that zinc mediated dimer formation is not important for IFN-beta activity. Note: The present sequence is not shown in the specification but is derived from wild type baman IFN-beta sequence found in page 36 AAACOVING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Instan protein is useful for inhibiting anglogenesis in a patient. If may also be used to treat multiple sclerosis, librosis, inflammatory and advanments discusses, cancers, hepatitis and vital infection characterised by necessitisation. The present sequence is a human interference beta alamine substituted mutant HIZIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the patent discloses tusion proteins comprising glycosylated interferon beta (FEN beta) especially FEN beta-la. Tinker groups and now FEN beta profesus, especially an immunoglobulin (Ig) protein. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fusion proteits comprising interteron-beta-la useful for inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (AAY/OH71)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               White y A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   andioernesis: antiseterotie; antiintlammatory; imaunosuppressive; sytostatic; sirueide; hepatotropic; antiandiodenie; treatment; fibrosis; multiple seletosis; intlammatory disease; autoimmune disease; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (RIGHT) BIGGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16 PER 1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hepatitis: viral intection; neovascularisation; IEN-beta-la.
[2] HIRBAAJUSHYIKAWASARANATIAN, HISABWATAHITELALAARHHITEL
                                                                              FI SSWINGAGE GENERAL STREET FIRST CHANANTER STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET 
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                                                                                                                                                   EMIQNIFATERQUSSSFOWNETIVENLLANVYBOINBLETVLEEKLEKEDFTEGALMSSL 120
                                                                                                                                                                                                                             AT DIVENTIAND AND SELECTION OF THE ANNEAD SELECTION OF THE MAINTENANCE OF THE PROPERTY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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Fred. No. 1.8e-70;
0: Mismatches 1: Indels
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AAY84962
1D AAY8
W0200023114 - A2
                                                                   /hote "wild type bys replaced with Ala" Mise-difference 137 \,
                                                                                                                      Misc difference 136
                                                                                                                                                                                                                                                                                viral disease; angiogenic disease.
                                                                                                                                                                                                                                                                                                   Interferon beta la: IEN-betala: polymer: polyalkyleno alycel: tumod:
cancer: autoimmune condition: fibrosis; lupus; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                               Alanine mutant of human interteron beta la protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY84962 Standard; Protein;
                                                                                                                                                                                                  Homo sapiens.
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                                           /note- "wild type Glu replaced with Ala"
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16-OCT-1998; 16-FEB-1999; 15-OCT-1999; 9908-0120161 9808-0104572 99WO-US24201

Pepinsky B. Runkel L. Brickelmaler M. Whitty A. Hochman P:

WPI: 2000-339534/29.

(BIOJ) BIOGEN INC.

diseases occutting jodymer containing a polyarkylene glycol useful for treating e.g. tumors, autoimmune disorders, viral intections and angrosenie New glycosylated interferon beta-la coupled to a non naturally

Example 1; Place ; 73pp; English.

treatment, remission or attenuation of a disease state, physiological condition, symptoms or effoliableal factors, or for their excludition or diagnosis. The IFN betala polymer conjugates may also be taken for prophylaxis or treatment of any condition or disease state for which the IFN betala constituent is efficacions, in biological systems or specimens, note: the present sequence does not appear in the stability in solution, reduced immunogenicity, protection of the modified IFN beta la from proteolytic diagestion and subsequent abolition activity, and increased thermal stability. The polymor based conjugates are useful for freating timors and concer, as well as autonomore or conditions such as fibbosis, hipps and multiple sclenosis. These may also be used in the treatment of viral diseases, as well as in the treatment of viral diseases, as well as in the treatment of analogenic diseases. IFN betala is useful as an electric the (IEN betala) protein. The protein is used to produce a composition comprising a diversely like all IVN beta coupled to a non-materially occurring polymer containing a polyakylene diversely. The composition has enhanced activity, measured by an artificial assay, as compared to physiologically active IEN-beta, the polymer IEN betala compared has the ability to stay in the vasculature for longer periods of time, has increased specification; it was created using information provided AAY84950-64 represent alanine mutants of human interferon beta la

Sequence 166 AA;

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RESULT 7
AAY70BB4
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                       WP1: 2303 349654/25
                                                                                  Whitty A. Bunkel L.
                                                                                                                                                (BIND ) BINGEN INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hepatitis; viral infection; neovascularisation; IFN-beta-la; DE loop.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; interferon beta; HFW-beta; immunoqlobulin; fusion protein; mutant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human interferon-beta alanine substituted mutant DE1.
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The present sequence is characterised by neovascularisation. The present sequence is a human interior beta alamine substituted modant beli-accorated by mutating residues in the DE Loop of wild type sequence. The AlaySer substituted modants is 14M beta haring substitutions in the lices A. B. C. b or E. or loops AB. C. or DE were assessed to receptor binding and innetional activities e.g. antivital and or antiprolliferative activities but its antiprolliferative activity is lower than antivital activity and both antivital and antiprolliferative controllerative activities to receptor binding, compared to the CC activities are lower relative to receptor binding, compared to the CC activities are lower relative to receptor binding, compared to the CC activities are lower relative to receptor binding, compared to the CC activities. Note: The mutant is used to produce the Sectional in page to that is derived from wild type bundar lenders as not shown in the specification of bat is derived from wild type human lenders as sequence to and to proteins.
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immendal bulin (1a) protein tusion protein is useful for inhibiting anglogenesis in a patient
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                                                         TAMOS SMIRE ( MIRE)
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Kontrad MW. Mark de
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186 — Atlanyanış
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                             Disclosure: Fig 20: 96pp: English
                                                                                             anti-meoplastic and immuno modulatory agents
                                                                                                                           New modified beta interferon(s) - useful as autivital.
                                                                                                                                                                                                         N-PSDB: AANS0306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI, 1985 055462/09.
N PSDB; AAN50289.
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                                                                                                                                                                                                                                           1985-020165/04
                                                                                                                                                                                                                                                                                                                  Boseley PG,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        83GB-0017880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84EP-0107498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98.5%; Score 859; D8.6; Length 166;
98.8%; Pred. No. 3.5e 70;
ative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                              Smith Je.
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RESUL: ii
AAP61071
ID AAP61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                             18-JAN-1985;
05-NOV-1986;
05-AUG-1986;
                             Oxidm. resistant matein(s) - prepd. by replacing oxidm. resistent methioning with conservative aminoacid
      Claim 5; Page 50; 50pp; English
                                                                       WPI; 1986-239075/37
                                                                                             koths KE, Halenbeck RF,
                                                                                                                                                                                                                                                                                                                                                                                      Nise-ditterence 1..6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-OCT-2002 (updated)
28-MAY-1991 (first entry)
                                                                                                                     (CETU ) CETUS CORP
                                                                                                                                                                                                                                                                                           Misc-difference 117
                                                                                                                                                                                                                                                                                                                  Misc-difference 62
                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           exidation resistant mutein of Interferon-Beta.
                                                                                                                                                                                 17-DEC-1985;
                                                                                                                                                                                                         17-JAN-1986;
                                                                                                                                                                                                                                 31-JUL-1986
                                                                                                                                                                                                                                                        AU8652451-A
                                                                                                                                                                                                                                                                                                                                           Misc-difference 36
                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                  lL-2; IFN Beta; colony stimulating factor; CSF-1; tPA; nGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAP61071;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAP61071 standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence encodes a synthetic interferon-beta which has increased biological activity compared to actural IFN-beta, and which is more effective in the treatment of viral or neoplastic discusses of immunosuppressed or immunodeficient conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 HIKPYYSPILHYLKAKEYSHOAWTIYPYFILFHIII IIIIIIIIII 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 HLKRYYGFILHYLKAKEYSHOAWTIVBVEILFNEYFINBLIGFLEN 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 EMLQNIFA1FRQDSSSTGWNET1VENLLANVYHQINHLKTVLEEKLEKEDFTRGKLMSSL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 EMIQNIFATERQDSSSTGWNETIVENITANVYHOTNHLKTVI FEKTEKEPET 5-7ALMSSL. 2-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MSYNLLAFTQRSSNEQQWKLLWQLNGKLEYCLKDRMNEDTPEETRQTQQFQREFAALTIY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                             8608-0893186
                                                                                                                                                                    8508-0692596.
                                                                                                                                                        86AU-0064846.
                                                                                                                                                                                 8508-0810656
                                                                                                                                                                                                        86AU-0052451
                                                                                                                                                                                                                                                                                                                                                                     /mote: "May be M terminal truncated or 17
                                                                                                                                                                                                                                                                                                                                                /note: "May be any conservative AA"
                                                                                                                                                                                                                                                                          Znota- "May be iny conservative AA"
                                                                                                                                                                                                                                                                                               /may be any conservative AA"
                                                                                                                                                                                                                                                                                                                         /moto- "May be asy conservative AA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98.5%;
                                                                                             lunis MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 859; DB 6;
Pred. No. 3.5e-70;
0: Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 166;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                              The inventors claim an interferon conjugate wherein a C-terminal of
the region exhibiting biological activities of interferon-beta has
been linked to an N-ferminal of the region exhibiting borological
activities of interferon-gamma. The antiviral activity of the
                                                                                                                                                                                               Conjugates of interferon(s)-beta and-gamma - useful as antivirals and anti-cell proliferatives with broader spectrum of activity and obtd. economically by recombinant DNA procedures
Sequence
                                             conjugate was tested using FL cells-sindbis virus system according to the CPE 50 inhibition method. Antiviral activity ranged from
                                                                                                                                                                    Claim 7; p35; 52pp; English
                                                                                                                                                                                                                                                                            WPI; 1987-258309/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Modified peptide has residues susceptable to chloramine I and peroxide oxidiation replaced with conservative AAs. Mutein is thus resistant to oxidisation, other proteins which may be similarly rendered resistant include tissue plusminogen activator, colony stimulating factor and human growth factor.

(Opdated on 03-00T-2002 to add missing CS field.)
                                200 U/ml to 18500 U/ml.
                                                                                                                                                                                                                                                                                                            Tanaka T. Kawano G.
                                                                                                                                                                                                                                                                                                                                             (TORA ) TOPAY IND INC
                                                                                                                                                                                                                                                                                                                                                                                  26-DEC-1986;
                                                                                                                                                                                                                                                                                                                                                                                                  14-MAR-1986;
                                                                                                                                                                                                                                                                                                                                                                                                                                   10-MAR-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-SEP-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EP237019-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antiviral; antiproliferative agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence of interferon-beta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-JUN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAP70296:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAP70296 standard; protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 HLKRYYGPILDYCKAKFYSHCAWTTYPYETLENFYFINELTGYLEN 166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MSTRELGELZASSNEZGZKIEMZENGKETZELKERNRELEFEKIKULQUFQKEDAALTIY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   i MSYNLLGELQRSSNEQCQKILIWQI NGF. EYCI KDEMNEDI PEETKQLQQEQKEDAALTIY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        164, Conservative
166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                8698080-dF98
                                                                                                                                                                                                                                                                                                                                                                                                                                   87EP-0103406
                                                                                                                                                                                                                                                                                                                                                                                                86JP-0054650
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98.8%;
                                                                                                                                                                                                                                                                                                              Sawada R;
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Query Match Best Local Similarity

38.58; 38.58;

Score 859; DB 8; Pred. No. 3.5e 70;

Length 166;

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                 Marthes 164; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Section Desc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein which is mutated into an amino acid having at least one hydroxy group substituted for at least one of Leaf, PhoB, PhoB, Leu47, PhoS0, Lou106, PhoB111, Lou116, Lou120 and PhoB6, Subjurtants can be used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New mutated recombinant human interferon-beta protein contains hydroxylic amine acid substitutions to improve water solubility—nsed e.g. in in witto servening assays, to measure interferon levels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DE13717864 A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           medicaments e.a. for treating multiple scienosis, for in vitro screening assays and to measurement of interferon levels. The mutated protein is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure: Fig 1; 18pp; German.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23 AFR 1997:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            this sequence represents a native human recombinant interferon-beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and to treat multiple sclerosis
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98.8%; Pred. No. 4.5e-70;
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                                                stability in solution, reduced immunogenicity, projection of the modified FFN-beta-la from proteolytic digestion and subsequed abolition are triby, and increased themmal stability. The polymer based conjugates are useful for treating tumors and cancer, as well as autoimmuno conditions such as librosis, lupus and multiple sclerosis. Lesse may also be used in the treatment of virial diseases, as well as in the treatment of virial diseases, as well as in the treatment of undisease. FFN betala is useful as an agent for the treatment, remission or attenuation of a disease state, physiological condition, symptoms or etheracial factors, or for their evaluation or diamosis. The FFN betala polymer conjugates may also be used the perphylaxic or treatment of any calling at disease state for which the FFN-betala constituent is efficacious, in biological systems or specimens independent in the specimens descent sequence does not appear in the
                                                                                                                                                                                                                                                                                                                    polymer containing a polyalkylene glycol. The composition has enhanced activity, measured by an antivity assay, as empared to physiologically active IFN beta. The polymer IFN-betalla conjugate has the actility to stay in the vasculature for longer periods of time, has increased
                                                                                                                                                                                                                                                                                                                                                                                            AAY84950-64 represent alamine mutants of human interteron beta la (IFN-betala) protein. The protein is used to produce a composition comprising a digrosylated IFN-beta coupled to a non-naturally occurring
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New glycosylated interferon beta-la coupled to a non-naturally occurring polymer containing a polyalkylene glycol useful for treating e.g. tumors, autoimmune disorders, viral intertions and angiogenic
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                                      specification; it was created using information provided
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                  Whitty A.
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Synthetic.
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                                    (BIOJ ) BIOGEN INC
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                  Prickelmaier M.
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Note: The prosent sequence is not shown in the specification but is derived from wild type human IEN beta sequence found in page 46 (AAY70871).
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CENERAL INFORMATION:
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APPLICANT: Grant, Francis J.
APPLICANT: Riven, Mark
APPLICANT: Kindsvedel, Wayne
ITILE OF INVENITON: Interferon epsilon
FILE REFERENCE: 98-4601
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LITTLE OF INVENTION: Interferon Beta Pusion Proteins and Uses
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STURRENT FILING DATE: 2001-04-11
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PRIOR FILING DATE: 1999-07-08
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Similarity 98.8%; Pred. No. 5.2e-79;
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Score 859; 18-9; Length 185;
Pred. No. 5.90:79;
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Publication No. US20030021765Al
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FILE REFERENCE: A0065POI
CURRENT APPLICATION NUMBER: 35207842,658
CURRENT FILING DATE: 2001-04 11
PRIOR APPLICATION NUMBER: 807104,572
                                                                                                                                                                                       APPLICANT: Andersen, Kim Vilbour
APPLICANT: Rasmussen, Poul Haad
APPLICANT: Pedersen, Anders Hjelholt
                                                  FILE REFERENCE:
                                                                                      TITLE OF INVENTION: POLYPEPILDES
                                                                                                                                                                                                                                                                                                                                           APPLICANT: Bornaes, Claus
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CURRENT APPLICATION NUMBER, 6071 7554.201
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CENTERAL INPORMATION:
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Pest Local Similarity 98.8%,
Matches 144: Conservative
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Patent No. US28020172660A1
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LITLE OF INVENTION: HUMAN INTERFERON EPSILON: A TYPE I INTERFERON
FILE REFERENCE: P124472CI (replacement)
CURRENT AFFI ATT MINUMER 73, 07,7715, 722A
CURRENT FILING DAIE: 2001-07-30
FRIOR APPLICATION NUMBER: US 09,7202122,
FRIOR APPLICATION NUMBER: US 09,7202122
FRIOR APPLICATION NUMBER: DOTTOLOR CORTES
PRIOR SEG. ID NVS: L2
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APPLICANI: Godowski,
APPLICANI: Wood, Will
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FRICH APPLICATION NUMBER: US 60/245,645
FRICH FILING DAFE: 2000-11-02
NUMBER OF SEC ID NOS: 49
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ORGANISM: Homo sapiens
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                                                                                    121 HIKRYYOKILHYLKAKEYSHCAWTIVKVEILRNEYRINRLIGYLRN 166
                                                                                                                                                                                                                                               61 FMI_ONIFATERODSSSTOWNFITVENFITANVYHQINHLKTVILEEKLEKEDFTEGALMSSL 120
                                                                                                                                                                                                                                                                                                                              82 EMIQNIFATEHQDASSTOWNETTVENTTANVVHQTNHLKTVLEEKLEKEDFTEOKLMSSI. 141
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Wood, William I.
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US-09-832-659-2
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TITLE OF ENVIRTICAL INTERFECTATION Retails and Proteins and Uses
FILE REPREDENCE A064PerSEO
FILE REPREDENCE A164-CHARLES (A) (882,659)
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LENGIH: 399
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PRIOR APPLICATION NUMBER: EP JG 44 0054.7
PRIOR FILING PATE: 2000-02-28
PRIOR FILING PATE: 2000-02-38
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FRICK APPLICATION HUMBER, US 60/246,089
PRIOR FILING DATE: 2000-11-07
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URGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                          98.5%; Score 85%; DB 9; Length (99; 98.8%; Pred. No. 1.6e-78;
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Patent No. US20020137147A1
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DELIK AFFLICATION NUMBER: EF 00 44 0058.7
PETOK FILLNE DALE: 2000 02:23
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CURRENT FILING DATE: 2001 OB 10
PFIOR AFELI ATTON NUMBER: 09/724,860
PRIOR FILIN: DATE: 2000 11 28
                                                                                                                                                                                                          SOFTWARE: Patentin version 4.1
                                                                                                                                                                                                                            PRIOR FILLING DATE: 2000 11 07
NUMBER OF SEC ID NOS: 3
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FILE OF INVENTION: Interferon Like Molecules and Uses Thereof
FILE REFERENCE: 99, 92 F
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  / Match 97.7%; Score 852; DB 10; Length 166; Local Similarity 98.2%; Prod. No. 2.60-7B; cost 163; Conservative 0; Mismatches 4; Indels
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                                                                                     SOFTWARE: Patentin Ver.
ORGANISM: Homo sapiens
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Patent No. US20020155547A1
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                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/842,659
CURRENT FILING DATE: 2001-04-11
PRIOR APPLICATION NUMBER: 60/120.247
PRIOR FILING DATE: 1999-02-16
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PRIOR APPLICATION NUMBER: 50/104,491
PRIOR FICING DATE: 1998-10-16
NUMBER OF SEQ ID NOS: 44
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SOFTWARE: Patentin Ver. 2.0
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JELLHYLKAKLYSIB, AWI IVEVEILENEYE DHGJ JYLKH 166
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APPLICANT: BIGGEN, INC.

APPLICANT: For insky, Flak,

APPLICANT: Runkel, Laura

APPLICANT: Brickelogier Margot

APPLICANT: Whitty, Adrian

ITTLE OF INVENTION Polymor Conjugates of Interferon Beta-1a

ITTLE OF INVENTION: and Uses

FILE REFERENCE: A065PCT

CURRENT FILING DATE: 2001-04-11

FRIER APPLICATION NUMBER: 60/104,572
                                                                                                                                                                                                                               INS-03-842-658-28
September 29, AFRITETING TS,00832(58)
Publication No. US20030021765A1
GENERAL INFOHMATION
APPLICANT BIOGEN, INC.
APPLICANT BIOGEN, INC.
APPLICANT BIOGEN, INC.
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: ORGANISM: Homo sapiens
US-C9-725-433-4
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Patent No. US20020068362A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HILLE OF INVENTION: Increased transform expression in petroviral vectors having a sea FillE of INVENTION. attachment region
FILE REFERENCE: 4-809218/SYS
CHREEN APPLICATION WINEFE IS,005,727,483
CHREEN FILING DATE: 2000 11-29
NUMBER F SEV ID NOS: 7
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PRIOR FILING DATE: 1998-10-16
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APPLICANT: BIOGEN, INC.
APPLICANT: Profitsky, Blake
APPLICANT: Brickelmaier, Margot
APPLICANT: Brickelmaier, Margot
APPLICANT: Brickelmaier, Margot
APPLICANT: Whitty, Adrian
APPLICANT: Whitty, Adrian
TITLE OF INVENTION: Bodymer Conjugates of Interferon Beta-la
TITLE OF INVENTION: and Uses
TITLE OF INVENTION: and Uses
TITLE REFERENCE: A065PCT
CURRENT ATPLICATION HOMBER, US/13/6-2/5-8
CURRENT ATPLICATION HOMBER, US/13/6-2/5-8
CURRENT ATPLICATION HOMBER, US/13/6-2/5-8
CURRENT ATPLICATION HOMBER, 03/120,164
PRICE APPLICATION HOMBER, 03/120,164
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Sequence 27. Application US/09832658
Publication No. USZ0030021765Al
GENERAL INFORMATION:
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LENGTH: 166
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SOFTWARF: FastSEQ for Windows Version
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PRIOR FILING DATE: 1999-02-16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: FastSEQ for Windows Version 4.0
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121 BLKEYYGETLBYLKAAAYSHCAWTTVEVETLFYFYFIZIKLTGYLKN 166
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Genture version 5.1.4_p5_4578 copyright (e) 1994 - 2003 Compugen Ltd.
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SUMMARIES

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1	#75	0.601		22 US-04-832-658-24	Sequence 24, App
r.	# S 4	3H.5	166	PCT US98-14497-5	sequence 5, Appli
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Query Match Best Local Similarity	US-09-832-658-24	PRT	1.ENGTH: 166	SOFTWARE: FastSEQ for Windows Version 4.0	NUMBER OF SEQ ID NOS: 24	PRIOR FILING DATE: 1999-02-16	APPLICATION NUMBER: 60/120, b.	PRIOR FILING DATE: 1998-10-15	TRICK APPLICATION NUMBER, 60/104,072	CURRENT FILING DATE: 2001-04-11	CURRENT APPLICATION NUMBER: 05/59/432,658	LUNG900 + 4 Chadadad A III a	TITLE OF INVESTION: and Uses	7	: ;	4	=	4	1	- 4	TENTRAMENTAL INCHES	W	ULT 1	
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: GENERAL INFORMATION:
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      garay Match
                                                                                                            SEQ ID NO 7
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                                               09 157 068 7
                                                                                                                                                                                                                                           APPLICANT: Wayne Kindsvogel
LILLE of INVENITON: Interferon epsilon
FILE REFERENCE: 98-46
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                                                                                                                                                                                              CUPRENT APPLICATION NUMBER: US/09/157.068
                                                                                                                                                                                                                                                                                                        APPLICANT: Barrell C. Conklin
APPLICANT: Francis J. Grant
APPLICANT: Mark W. Rixon
                                                                                                                                                                              NUMBER OF SEQ ID NoS: 17
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NUMBER OF SEC 1D NOS: 41
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THRRENI FILING DATE: 1598-07-13
EARLIER APPLICATION NUMBER: 60/052,516
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  98.5%; Score 859;
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DB 15; Length 166;
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US-09-245-293-7
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                                                                                                                                             NUMBER OF SEQ ID NOS: 25
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 7
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                                                                                                                                                                                                                                                                      APPLICANT: Grant, Francis J.
APPLICANT: Rixon, Mark W.
APPLICANT: Rixon, Mark W.
APPLICANT: Rindsvoqel, Wayne
TITLE OF INVENTION: Interferon epsilon
FILE REFERENCE: 98-46
CURRENT APPLICATION HOMBER, 305/35/450,232
CURRENT FILING DATE: 1999 07-08
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APPLICANT: Grant, Fidners J.
APPLICANT: Rixon, Mark M.
APPLICANT: Eindsvogel, Wayne
TITLE OF INVENTION: INTERFERON EPSILON
FILE REFERENCE: 98-46X2
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CURRENT FILING DATE: 1999-02-05
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ORGANISM: Homo sapiens
                                                                                                 LENGTH: 165
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88-19-452-941-5
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                                                                                                                                                                                                                                            GENERAL INFORMATION:
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SEQ ID No }
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Best Local Similarity 98.8%;
                                                                                          APPLICANT: Fox III, George N
APPLICANT: Bolder Biotechnology, Inc.
TITE OF INVENTIAL Biotechnology, Inc.
FILE REFERENCE: 4152-1-PUS
CURSING APPLICATING NUMBERS OF THE 341
CURSING APPLICATING NUMBERS OF THE 341
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OTHERM AFFICIANTION NUMBER: USCON, 48-7,582B
CUDPENT ETILNG TOATE: 2000-02-22
FRIOR APPILITATION NUMBER: POT TO THE VIZ. TRAINER FROM PETERN PAIT: 147-8-04 (F
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FRIOR FILING DATE: 1997-24-24
NUMBER OF SEQ ID NOS: 22
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APPLICANT: otto, Bernd
APPLICANT: Waschutza, Gero
APPLICANT: Fraunhoter-Gesellschaft zur Foerderung der Angewan
Tille of INVENTION: Bauman Frosmeinisch Betarieren With Improved
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Tille of INVENTION: Solub Frosmeinische Betarieren With Improved
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NUMBER OF SEQ ID NOS: 41 SOFTWARE: Patentin Ver.
                                            PRIOR APPLICATION NUMBER: 60/052.516 PRIOR FILING DATE: 1997-07-14
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('RGANISM: Homo sapiens
04-401-5128-1
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7-41 THEOMET
7-4N 4H FES
                                                            NUMBER OF SECTIONS: 38
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                                                                                                      **SIPPRENT ABILITYALITYN NHMBER: US 2002-048 869
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LITTE OF INVENTION: NOVEL NEWLETC ACHDS AND TROTFIES WITH INTEFFERON RETA ACTIVITY
CHERENT AFFLICALL OF NUMBER, 08/05/550,722A
CHERENT AFFLICALLON NUMBER, 08/05/550,722A
CHERENT AFFLICALLON NUMBER: 08-60/13,785
                                                                                                                                   APPLICANT: Maryten \Delta E^{\Sigma} Tille of invention: New Interferon Retailike Molecules
                                          SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin version 3.1
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                                                                                                                                                                                                                                                                                                                   12) HEKRYSTRICHYLKAKEYSHCAWTIVRVETERNFYFINKLTGYERN 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              y Match 98.5%; Secro 859; 108-19; Length 166; Local Similarity 98.8%; Pred. No. 4.6e-80;
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; ORGANISM: Homo sapiens
US-09-648-569-2
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// GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                               RESULT - 3
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SEQ 1D No 16
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                                                                                        TITLE OF INVENTION: Novel Polypeptides and Polymerleatides Broading Same File Reference: 1596-615
CURRENT APPLICATION NUMBER: 0520-7742,446
CURRENT FILING DATE: 2001-09-14
PRIOR APPLICATION NUMBER: 052169,887
PRIOR APPLICATION NUMBER: 069/170,230
PRIOR APPLICATION NUMBER: 069/170,230
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                                             PRIOR FILING DATE: 1969-12-10
NUMBER OF SEQ ID NOS: 26
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APPLICANT: Shimkets, Richard A
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APPLICANT. Maxyden ApS
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                      SOFTWARE: Patentin Ver. 2.1
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Local Similarity 98.8%; Pred. No. 4.6e-80;
hes 164; Conservative 0; Mismatches 2
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US-09-732 446-16
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                                                                                                                                                           Sequence 95294, Application US/04791547
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Best Local :
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             APPLICANI: Bionomix, Inc.
APPLICANI: Dobe, Derek
APPLICANI: Dobe, Derek
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THEE OF INVENTION: METHODS OF USE THERBOY
FILE REFERENCE: 261/210
CHERENI APPLICATION NUMBER: 08/09/791,537
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PRIOR FILING DATE: 1999-12-10
NUMBER OF SEL ID NOS: 26
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[] ILLE OF INVENTION: Novel Polypeptides and Polynucleotides Encoding Same
[] ILLE REFERENCE: 15965-615
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APPLICANT: Shimkets, Richard A
CURRENT FILING DATE:
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                                                                                                                                                                                                                                                                                   121 HERRYSTEHYLKAKSYSHCAWITVEVELLENEYSINRLIGYLRN 166
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Pending Nucleic Acid and/or Pending Amino Acid database searches now generate two sets of results. These databases were split into to two parts to reduce the time needed to update the databases daily. The split freed up more machine time for processing searches.

Searches run against the Nucleic Acid Pending database produce two sets of results, with the extensions, .rnpm and .rnpn
Searches run against the Amino Acid Pending database produce two sets of results, with the extensions, .rapm and .rapn

The Pending database search results should not be left in the case because they contain data that is confidential.